S l i d e 1	Module 12: Animal Disease Traceability USDA-APHIS National Veterinary Accreditation Program (NVAP)	Welcome to Module 12: Animal Disease Traceability. This module was developed as supplemental training for the USDA-APHIS National Veterinary Accreditation Program (NVAP) by the Center for Food Security and Public Health at the College of Veterinary Medicine, Iowa State University. The content for this module was finalized in July 2014 and revised in August 2016. <i>Presenters: As</i> <i>designed, slide completion time ranges from 30 to 60</i> <i>seconds each, such that the entire presentation can be</i> <i>completed in 45 minutes. Also, your audience should be</i> <i>made aware of how they can access the seven handouts</i> <i>associated with this module, six of which provide specific</i> <i>details on ADT Rule requirements for cattle horses and</i>
		other equines, sheep and goats, swine, poultry, and captive cervids. They are available in the corresponding web module (Module 12: Animal Disease Traceability) on the USDA website. They are also included on a thumb drive available through the ADT Staff who can be reached at: <u>traceability@aphis.usda.gov</u> .
S l i d e 2	Provide the second s	A few important points about the renewal process, first you must sign in to get credit for taking each APHIS Approved Supplemental Training Module. This will either be done using a paper sign in sheet that is being passed around or the iPad that is being passed around. Second at the end of the presentation you will receive a certificate of completion, this is your proof you have completed the module. Please retain this for your records. Do not send it to APHIS as part of the renewal. You must submit an application for renewal as part of the two-step renewal process. This can either be done on-line or via paper. Both processes are described on the NVAP website.
S 1 d e 3	iPad Sign-In Directions • Tap each field to enter data* • Select Submit • Review information for accuracy • In to accurate, see me after presentation • Select Confirm • Pass to next participant • If you don't know your 6 digit national accreditation number, pass the IPad along and see us after session	In order for the key pad to display the participants must first tap the first field on the screen (first name field). This will display the key pad. The participant must then either tap the stylus pen or their finger into each subsequent field on the screen. The user must tap into each field. Enter your entire National Accreditation number including leading 0's.

S 1 d e 4	If No Match Found • Your name must match what is in our records. e.g. "Jim" not "James", "McDonald" vs "Mc Donald" • If "No Match Found" displays after you attempt to re-enter your name and NAN, pass the tablet to next participant and see us after session	However if they have not entered the data the way it is entered into our database they will get a No Match Found message. They should attempt to re-enter the data two more times and then pass the tablet to the next participant. They must see the instructor after the presentation to ensure they do get credit for the module they have taken. Certain reasons their name is not displayed include: Their name is not entered correctly - James vs Jim, McDonald vs McDonald etc.
S 1 i d 5	Paper Sign-in Print clearly Complete ALL fields If you do not know your 6 digit National Accreditation Number, please see us after session	If a paper sign in is being used please make sure you print clearly or you may not get credit for the AAST module. It is critical that we have your updated email address to ensure you receive notifications from NVAP. If you do not know your six digit National Accreditation Number (NAN), please see the instructor after the presentation.
S 1 d e 6	Supplemental Training • Familiarize accredited veterinarians with animal health regulatory concepts and activities • Does not supersede regulations • Does not supersede regulations • For the most up-to-date regulations and standards, please refer to: • Code of Federal Regulations • Local VS District Office	Presenters: Please make sure your audience understands the intent of this information by reading what is written here. This informational presentation is intended to familiarize accredited veterinarians with animal health regulatory concepts and activities. Information presented here does not supersede the regulations. For the most up- to-date regulations and standards, please refer to the Code of Federal Regulations and your local VS District Office.
S l d e 7	 All APHIS Approved Supplemental Training (AAST) modules are also available on our website with interactive features and links to additional Web resources. Type "NVAP" into your search engine, e.g., Bing, Google, Yahoo. 	All modules are available on our website free of charge. If you want additional information about any of the presentations you may check them out on our website where additional resources are available. The NVAP website is available by typing NVAP into your preferred search engine.

S		Upon completion of this module, you will be able to:
1	• Aspects of Animal Disease	•Explain the aspects of Animal Disease Traceability (ADT)
i	Traceability (ADT)	to clients and the public
d	Official ID devices and methods Documentation of interstate movement	•List the official identification devices and methods used
u	for traceability Regulations for interstate movement 	for different livestock species
е 0	of livestock Responsibilities of accredited veterinarians 	•Explain why documentation of interstate movement of
ð	regarding ADT	livestock is necessary for effective traceability
	USDA-XMHIS July 2014' Revised August 2016 National Veterinary Accreditation Program Center for Food Security and Public Health	•Locate the regulations governing the interstate movement
		of different species of livestock
		•Describe the responsibilities of an accredited veterinarian
		with respect to ADT, specifically Title 9 of the Code of
		Federal Regulations (CFR) Part 86 and Part 161.
S	Importance of Animal	At the request of the cattle industry the U.S. Department of
1	Disease Traceability	Agriculture (USDA) established the Veterinary Division in
i	USDA-APHIS cooperates with industry, States, Tribes to control, eradicate	1883 to control and eradicate certain animal diseases.
4	Several successful examples but	including zoonoses, USDA Animal Plant Health Inspection
u	threats remain Continued success requires awareness, 	Service (APHIS), in cooperation with livestock* and
e	education, planning, and effective ADT – ADT is fundamental for successful animal	poultry producers. States, and Tribes, has facilitated several
9	disease control and eradication programs	successful animal disease control and eradication efforts.
	USDA-XMHIS July 2014' Revised August 2016 National Veterinary Accreditation Program Center for Food Security and Public Health	Animal disease threats remain and continued success
		requires awareness, education, planning, and effective
		Animal Disease Traceability (ADT). ADT is fundamental
		for successful animal disease control and eradication
		programs.
		*Livestock are defined in 9 CFR §86.1 as all farm raised
		animals
G		
S	Importance of Animal Disease Traceability (cont'd)	Most countries define traceability in terms of being able to
I	ADT focuses on traceability of	track an animal from birth to the finished product
i	live animal from farm to harvest, not farm to fork	purchased by the consumer. The term "farm-to-fork" is
d	• 3 pillars of ADT	often used to describe this concept of "full" traceability.
e	- Specific location	ADT however, focuses on the traceability of the live
1	– Point in time Point in Time	animal from farm to harvest. ADT accomplishes this by
0		having access to three components or "pillars": unique
	USDR-APHIS July 2014: Revised August 2016 National Veterinary Accreditation Program Center for Food Security and Public Health	animal identification with a specific location at a point in
		time. It is intended as a tool to support animal disease
		control programs, not food safety. Regardless of the animal
		disease or species, this data linking is integral to disease
		control and eradication.

S 1 d e 1 1	<section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header>	Accredited veterinarians (AVs) play an important role in linking the three pillars of ADT. AVs share the responsibility with State and Federal animal health officials and producers so that traceability can occur quickly and efficiently when needed. When completing livestock movement and disease control documents, accredited veterinarians must: -Make sure to record the address that corresponds to the physical location of the animals, not a PO Box, corporate headquarters office, or a financial institution, when testing animals or issuing interstate movement and disease control documents (Location) -Determine if the movement requires official ID and ensure it is properly applied on the species and recorded on livestock movement and disease control documents (Unique Animal ID) -Ensure the appropriate date is recorded on livestock movement and disease control documents (Point in Time).
S 1 d e 1 2	Animal Disease Investigations • Past 5 years: Brucellosis • 400 reactors per year • 10 infected cattle herds • 4 infected bison herds • 4 infected bison herds	An animal disease investigation involves the cooperative efforts of States, Tribes, Federal agencies, and accredited veterinarians. Over the past 5 years in the United States, State, Tribal, and USDA animal health officials have investigated approximately 400 bovine brucellosis reactor animals per year, disclosing a total of 10 infected beef herds and four captive bison herds.
S 1 i d e 1 3	Animal Disease Investigations (cont'd) • 2008–2012: Tuberculosis -51 cattle and captive cervid herds <i>M. bovis</i> affected -91 cattle through slaughter surveillance	From 2008–2012, 51 cattle and captive cervid herds in 14 different States were declared * <i>M. bovis</i> -affected. During the same time period, bovine tuberculosis was detected in 91 cattle by slaughter surveillance. *As defined in 9 CFR §77.2, a herd of livestock is affected when there is strong and substantial evidence that <i>Mycobacterium bovis</i> exists. This evidence includes, but is not limited to, any of the following: histopathology, polymerase chain reaction (PCR) assay, bacterial isolation or detection, testing data, or epidemiologic evidence such as contact with known sources of infection.

 Animal Disease Investigations (control) Enhanced by timely access to accurate ADT information, including accurate accurate ADT information, including accurate completed test charts, Interstate Certificates of Veterin Inspection* (ICVIs), and vaccination records. The monotime it takes, the greater the potential for more herds a animals - unpredicted exposed animals in the takes. ADT shortens time required to find all infected and exposed animals and implement appropriate control, eradication, or surveilly measures. Speaker: Please stress ICVI terminology and explain to new requirements as defined in 9 CFR Part 86. *An ICVI is an official document issued by an accredit veterinarian or Federal, State or Tribal Animal Health Official. It is often referred to by other names such as "health certificate," "CVI," "Official CVI," "Electroni CVI," etc. The term ICVI is included as a definition in CFR Part 86 and is used in this module to emphasize s key points: ICVIs document veterinary visual inspection, not the examination An inspection is defined under 9 CFR §160. the "visual study of the physical appearance physical condition, and behavior of animals (singly or in groups) that enables an accredit veterinaria to determine whether any abnormality in physical condition or bodily function is suggestive of clinical si of communicable disease." CVIK are intended for interstate movement. Other 			
certificates may be needed for intrastate or internati movement.	S 1 i d e 1 4	Animal Disease Investigations (cont'd) • Enhanced by timely access to accurate ADT information - Accurately completed test charts, ICVIs, vaccination records • ADT shortens time required to find infected, exposed animals - Implement control, eradication, surveillance measures - Does not prevent diseases Merror and the second sec	 Animal disease investigations are enhanced by timely access to accurate ADT information, including accurately completed test charts, Interstate Certificates of Veterinary Inspection* (ICVIs), and vaccination records. The more time it takes, the greater the potential for more herds and animals to become infected or exposed. The public frequently asks how ADT prevents disease. Traceability does not prevent diseases from entering the country nor does it prevent animals from becoming infected with diseases already present. Traceability shortens the time required to find all infected and exposed animals and implement appropriate control, eradication, or surveillance measures. Speaker: Please stress ICVI terminology and explain the new requirements as defined in 9 CFR Part 86. *An ICVI is an official document issued by an accredited veterinarian or Federal, State or Tribal Animal Health Official. It is often referred to by other names such as "health certificate," "CVI," "Official CVI," "Electronic CVI," etc. The term ICVI is included as a definition in 9 CFR Part 86 and is used in this module to emphasize some key points: ICVIs document veterinary visual inspection, not health examination An inspection is defined under 9 CFR §160.1 as the "visual study of the physical appearance, physical condition, and behavior of animals (singly or in groups) that enables an accredited veterinarian to determine whether any abnormality in physical condition or bodily function is evident." An examination is defined under 9 CFR §160.1 as the "physical study of an individual animal to determine if an abnormality in physical condition or bodily function is evident." ICVIs are intended for interstate movement. Other certificates may be needed for intrastate or international movement.

S 1 i d e 1 5	ADT's Role in Protecting American Agriculture	This illustration demonstrates the steps involved in protecting American animal agriculture from devastating diseases. These include surveillance, diagnostics, analysis, investigation, and control and eradication. Traceability is essential in ensuring that each step of the process is correlated with the right animal, the right location, and the right point in time. Diagnostics uses state-of-the-art technologies to accurately detect animal disease. The accredited veterinarian is the first line of defense in protecting American animal agriculture. In most cases, it is the accredited veterinarian who examines, initiates diagnostics to accurately detect animal disease, and notifies Federal and State authorities of significant findings.
S 1 d e 1 6	ADT's Role in Protecting American Agriculture	Analysis relies on interpretation of results based on State, Federal, and OIE guidelines.
S 1 d e 1 7	ADT's Role in Protecting American Agriculture	The investigation gathers information on where the animal of interest has been, what animals it had contact with, and when.
S 1 d e 1 8	ADT's Role in Protecting American Agriculture	Control and eradication depends upon an appropriate response to disease information by APHIS VS and State and/or Tribal personnel.





S 1 d e 2 6	Use of Official Animal Identification • 2014: All U.S. States brucellosis-free – Fewer calves vaccinated, officially identified • 1988: ~10 million calves • 2010: ~3.1 million calves • 2010: ~3.1 million calves	Cooperative Federal-State eradication efforts have been successful, and as of July 2014, all States are brucellosis- free. While this is a positive development, it has resulted in a steep decline in the number of brucellosis tested and officially identified cattle. In 1988, there were 27 Class Free States, and approximately 10 million calves were officially identified through the brucellosis calfhood vaccination program. By 2010 that number had fallen to approximately 3.1 million.
S 1 i d e 2 7	Use of Official Animal Jdentification (cont'd) • 2014: Bovine TB close to being eradicated from domestic cattle • Fewer cattle caudal fold tested, officially identified • 2010: - 1.275 million • 2012: - 903,000 • This decline in use of official animal ID is one of the most important reasons why implementation of the ADT Rule was so important	As of June 2014, bovine tuberculosis is also close to being eradicated from the domestic cattle population, and fewer animals are being officially identified through TB testing. For example, the chart earlier listed the number of caudal fold tests conducted (1,275,815 in 2010 and only 903,289 in 2012). This decline in the use of official animal identification is one of the most important reasons why the implementation of the ADT Rule was so important . Livestock production has evolved since the brucellosis and tuberculosis control programs were implemented; so too must the methods to trace animals
S 1 d e 2 8	Recognition of Official Animal Identification • ID methods, devices used for • Disease control programs • Interstate movement • Herd management • Multiple species • Species-specific • Accredited veterinarians required to know official methods, devices and how, when to use them	Recognition of Official Animal Identification Some livestock identification methods and devices used for disease control programs and interstate movement are recognized as official and provide universally unique identification. Other methods are used only for herd management purposes and are often only unique within the herd. Some official devices and methods are used in multiple species, while others are species-specific. It is common for animals to be identified with multiple identification numbers. Accredited veterinarians (AVs) are required to know which methods and devices are official and how and when to use them. For more information about Official Eartags—Criteria and Options, see the USDA ADT handout. Graphic: The USDA ADT handout titled "Official Eartags – Criteria and Options" available on the USDA ADT website at: <u>http://www.aphis.usda.gov/traceability/downloads/ADT_ea</u> <u>rtags_criteria.pdf</u> . <i>Source: USDA APHIS</i>

S 1 d e 2 9	ADT Regulations for Interstate Movement	Next we will briefly describe some of the ADT regulations and requirements for interstate movement.
S 1 i d e 3 0	ADT Regulations Governing Interstate Movement	ADT Regulations Governing Interstate Movement On January 9, 2013, USDA's Animal and Plant Health Inspection Service created a new Part on Animal Disease Traceability in the Code of Federal Regulations (CFR) and amended Parts 71, 77, and 78 to be in harmony with the new Part 86. [Select Title 9—Animals and Animal Products; then Parts 1–199—Animal and Plant Health Inspection Service, Department of Agriculture; then find Parts 71, 77, 78, and 86]. A PDF of the amended Parts 71, 77, 78, and 86 is also available, however, if changes were to be made to these Parts, the most current information is available online. The ADT regulation is a USDA collaborative effort with animal health officials and producers. It ensures significant traceability progress while minimizing the cost and overall burden to producers. The regulation requires the official identification of livestock moved interstate with appropriate movement documentation. The ADT regulations do not provide for full traceability; rather, they provide a basic infrastructure to support disease traces. Official identification distribution records give animal health officials information, quickly, to determine where the animal was first tagged (often the birth premises).
S 1 d e 3 1	 Some ADT Regulations and Policies Official eartag shield and imiting official number systems over time Cattle ID requirements The months of age and older for sexually intact beef cattle All ages of dairy All ages of cattle in rodeos, exhibitions, shows, recreational events 	Some of the ADT regulations and policies that went into effect March 11, 2013, are described here. However, this is not a complete list of all changes. Over time, ADT will require all official eartags display the Official Eartag Shield and limit official number systems. Of all species, the most significant changes related to cattle identification requirements. Before ADT went into effect, sexually intact cattle over 24 months of age were required to have official identification. Under today's ADT rule, ID requirements include sexually intact beef cattle 18 months of age or older, all dairy cattle regardless of age, and cattle of any age involved in rodeos, shows, exhibitions, and recreational events. Beef cattle under 18 months (stocker/feeder cattle) remain exempt from official ID requirements.

		Graphic: This illustration depicts the Official Eartag Shield with US within the shield. The state postal code (PA, CO, ID, etc.) or Tribal alpha code could also be included within the shield. <i>Illustration of U.S. Route Shield recreated by:</i> <i>Dani Ausen, Iowa State University</i>
S 1 i d e 3 2	Some ADT Regulations and Policies (cont/d) • USDA approved backtags no longer official ID method - Used in lieu of official ID when cattle moved direct to slaughter • NUES tags may be applied by producers - When authorized by State • ICVIs defined in CFR - Submit to shipping SAHO within 7 days With With the shipping SAHO within 7 days With With the shipping SAHO within 7 days	Some ADT Regulations and Policies (cont'd) USDA approved backtags are no longer an official ID method but may be used in lieu of official ID for cattle moving directly to slaughter. Now an Official eartag is the "default" requirement for interstate movement. Breeding cattle can no longer move interstate to farms/ranches on a USDA approved backtag. One of the ADT policy changes allows National Uniform Eartagging System (NUES) tags to be applied by producers (when authorized by the State). Another change is that the ICVI is defined in the CFR regarding the information required for movement and how ICVIs are administered. For instance, ICVIs must be submitted to the shipping State Animal Health Official (SAHO) within 7 days of issuing the certificate. For full descriptions of all ADT Regulations and Policies, refer to 9 CFR Parts 71, 77, 78, and 86. Photos: (Top) A USDA approved backtag from Colorado (84) is no longer an official ID method in cattle. (Bottom) NUES tags representing the State of origin (in this case 42 for Iowa). These are also referred to as silver or Bright tags. <i>Sources: Neil Hammerschmidt, USDA (top), Andrew</i> <i>Kingsbury, Iowa State University (bottom)</i>
S 1 d e 3 3	 ADT Basic Requirements Unless exempted, livestock moved interstate need official identification and an ICVI When agreed upon by shipping and receiving States, other movement documentation and identification methods may be used APHIS Factsheet Questions and Answers: Animal Disease Traceability Final Rule Ward Ward Work Work Reget Traceability Final Rule 	Unless specifically exempted, covered livestock* moved interstate need to be officially identified and accompanied by an ICVI. When agreed upon by the shipping and receiving States, other movement documentation and methods of identification may be used. *Covered livestock includes cattle and bison, horses and other equine species, poultry, sheep and goats, swine, and captive cervids.For more information about the general requirements of the new rule, please refer to the APHIS factsheet, "Questions and Answers: Animal Disease Traceability Final Rule" available on the USDA's ADT website.



C		Official Identification Mathada
3 1 d e 3 6	Official ID Methods	Since each species may use different methods of identification, this section describes the methods currently in use. It is important to note that some of the ID methods are considered official only when approved and agreed upon by the animal health officials in the shipping and receiving States or Tribes. Other methods may be approved by the APHIS Administrator.
S 1 i d e 3 7	<text><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></text>	 Official Identification Methods—Official Eartags can be used on cattle, bison, sheep, goats, cervids, and swine and must be imprinted with: Official animal ID number The official eartag shield Beginning March 2014, all official eartags manufactured must bear the official eartag shield. Beginning March 2015, all official eartags applied to animals must bear the official eartag shield. In addition, official eartags must have the following characteristics: Tamper evident with a high rate of retention on the animal Must be approved by APHIS. For more information, see the "Official Eartags—Criteria and Options" handout available on the USDA ADT website. Photo: An official eartag showing the shield, which is in the upper left corner with the letters "US" in it. <i>Source:</i> Lohn Wirmans USDA
S 1 d e 3 8	<section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header>	Cattle, bison, sheep, goats, swine, and equines can all be identified with EID devices. External EIDs must have a visible ID number and are considered official when approved by APHIS and can be used for interstate movement. The requirement to be able to electronically 'read' the electronic chip imbedded in the tag, which contains an identical number as that imprinted on the external eartag, is only official when agreed upon by the shipping and receiving States. The imbedded electronic ID is considered a supplemental ID. If the EID is damaged, altered, or unreadable, the printed number can still be recorded manually. For cattle, EID tags are to be attached to the animal's left ear. Graphic: This collage of tags provides examples of the different types of animal identification. For an up-to-date full list of approved tags and manufacturers, visit the USDA ADT website http://www.aphis.usda.gov/traceability/downloads/ADT_de

		<u>vice_ain.pdf</u> . Pictured here (top to bottom) are EID tags
		from Allflex USA, eTag/TriMerit from Global Animal
		Management/Geissler Technologies, Round RFID Tag
		from Y Tex Corporation, and Leadertronic HDX from
		Leader Products. Source: Vince Chapman, USDA.
		Arrangement by: Andrew Kingsbury, Iowa State University
S	Official Identification Methods –	EID Implants*
1	Electronic ID Devices (EID) Implanted EIDs*	An EID is usually an implant placed under the animal's
i	– Under skin in subcutaneous (SQ) tissue – Regulated by FDA in food producing animals	skin in subcutaneous (SQ) tissue. The U.S. Food and Drug
d	FSIS determines acceptable implantation sites to ensure none	Administration (FDA) regulates implantable EIDs in food
4	enter human food supply – SQ on cartilage at base of ear, above dewclaw, in infraorhital fossa	producing animals. USDA's Food Safety and Inspection
2	- In ligamentum nuchae APHIS will approve EID implants	Service (FSIS) ensures that none of the implants enter the
3	when manufacturers are FDA, FSIS approved ^{*Only official for cattle, bison when approved;}	human food supply.
9	- None approved for cattle *Official for sheep, goats in SECP with documentation USDA-DMIS	FSIS has determined the following as acceptable
		implantation sites:
		• Subcutaneous on the scutiform cartilage at the base of
		the ear
		• Subcutaneous above the dewclaw of the foot
		• Subcutaneous in the infraorbital fossa
		• Directly in the ligamentum nuchae
		APHIS policy is to approve EID implants as official
		identification when the manufacturer can supply letters of
		approval from FDA and FSIS regarding the intended
		implant site and the procedures to prevent the devices from
		entering the human food chain. As of July 2014, APHIS
		has not approved any radiofrequency injectable
		transponders for cattle.
		*For cattle and bison, this ID method is official only when
		approved and agreed upon by the animal health officials in
		the shipping and receiving States or tribes. For sheep and
		goats required to be identified by the Scrapie Flock
		Certification Program (SFCP), electronic implants are
		considered official when used in a flock participating in the
		SFCP and when accompanied by a certificate or owner
		statement that includes the electronic implant numbers and
		the name of the chip manufacturer. Injectable implants are
		official for interstate movement of equines. Other methods
		may be approved by the APHIS Administrator.
		Graphic: Combo eTag and Electronic Implant Transponder
		Equine and Biothermal from Digital Angel Corporation.
		Source: Vince Chapman, USDA. Graphic arrangement by:
		Andrew Kingsbury, Iowa State University



Group/lot identification methods are typically used in swine and poultry but could be used in cattle, bison, sheep, and goats when applicable. Some animals are raised, sold, moved, and slaughtered as a group with no commingling. The group/lot identification number is used to uniquely identify a "unit of animals" of the same species that is managed together as one group throughout the preharvest production chain. When a group identification number (GIN)* is used, it is recorded on documents accompanying the animals moving interstate; it is not necessary to have the GIN attached to each animal. The GIN is a 15-character number. The graphic describes what each section of characters means. The GIN is not assigned by USDA; rather it is "self-generated" by the producer for animals at that location. It is also maintained by the producer in management records.

*Group/Lot ID is official only when approved and agreed upon by the animal health officials in the shipping and receiving States or Tribes. Other methods may be approved by the APHIS Administrator. Graphic: This illustration explains the components of a GIN. *Graphic illustration by: Andrew Kingsbury, Iowa State University*

A tattoo can be used to identify cattle*, bison*, sheep, goats, swine, and equine species.

All tattoos must be legible and located in the proper anatomical area. In equines, it should be placed on the upper lip, as pictured. In cattle, bison, sheep, goats, and pigs, it should be placed on the inside of the pinna (ear). In pigs, the inner flank is another option. Some breed registries allow the use of tattoos that are linked to the official breed registration number. Tattoos must be accompanied by the breed registration certificate. *Tattoos are official only in cattle and bison when approved and agreed upon by the animal health officials in the shipping and receiving States or Tribes. Other methods may be approved by the APHIS Administrator. Photo: The Thoroughbred racing industry and other breed registries have made lip tattoos the standard, preferred identification method. *Source: Ava Gooding, Tennessee*



Brands are commonly used to identify cattle, bison, and equine species. Fourteen States have brand inspection programs. Depending on the State, brands may be duplicated across multiple brand inspection authorities. Although brand inspection has proved valuable in animal disease traceability, there are limitations. There is no national brand inspection program. Each State has its own rules, certificates of inspection, and policies on what is required to be listed on a brand inspection certificate. The primary purpose of brand inspection is to find evidence of animal ownership, without or with one or many brands, for animals that are moved interstate.

*Brands in cattle and bison are official only when approved and agreed upon by the animal health officials in the shipping and receiving States or Tribes. This ID method in equines is official only when approved and agreed upon by the animal health officials in the receiving States or Tribes. However, when the identity of the equine is in question at the receiving destination, the State or Tribal animal health official in the State or Tribe of destination or an APHIS representative may determine if the identification provided is sufficient. Other methods may be approved by the APHIS Administrator.

Photo: A cattle freeze brand for individual animal identification. *Source: Megan Smith, Iowa State University* Equine species do not tolerate identification with eartags. Digital photos and physical description can be used to identify equine species. Some breed associations allow the use of physical description (age, gender, color, markings, hair patterns, blemishes, etc.) which is part of the registration certificate. In some cases, physical description may be considered as official animal identification. In other cases, especially in the equine industry, digital photographs sufficient to identify the individual animal may be an option.

*This ID method in equines is official for interstate movement. However, when the identity of the equine is in question at the receiving destination, the State or Tribal animal health official in the State or Tribe of destination or an APHIS representative may determine if the identification provided is sufficient. Other methods may be approved by the APHIS Administrator.

Photo: Front, left, and right side digital photos of a horse for individual animal identification. *Source: Danelle Bickett-Weddle, Iowa State University*





More than One Official Identification Device (cont'd) In the following cases, the person applying the additional official eartag must record the date the tag is added, record the official identification numbers of all existing official eartag(s) and the new eartag, and maintain those records for 5 years.

2) In specific cases such as for export shipments, quarantined herds, field trials, experiments, or disease surveys, a State, Federal or Tribal animal health official may approve the application of an additional official eartag to an animal that already has one or more. In addition to the records described below, the reason for the additional official eartag device must also be noted.

3) An eartag with an animal identification number (AIN) beginning with the 840 prefix (either radio frequency identification or visual-only tag) may be applied to an animal that is already officially identified with one or more National Uniform Eartagging System (NUES) eartags and/or an official vaccination eartag used for brucellosis.
4) A brucellosis vaccination eartag with a NUES number may be applied in accordance with 9 CFR Part 78 to an animal that is already officially identified with one or more official eartags.

When an animal with more than one official ID moves interstate, **ALL** official ID numbers must be recorded on the ICVI or other movement document as required by the shipping and receiving States.

Photo: This dairy cow has multiple forms of identification, some are official (metal NUES tag in her right ear, orange 840 RFID tag in her left ear) and some are not (two identical plastic farm ID tags, one in each ear but not AIN tags, and a white button tag). *Source: Center for Food Security and Public Health, Iowa State University*

S 1 d e 4 8	Removal or Loss of Official Identification Devices 9 CFR §86.4(d): Removal of official ID is prohibited • Staughter • Death of animal • Otherwise approved animal health official or AD	According to 9 CFR §86.4(d), removal or loss of official identification devices, including country of origin devices required for import into the United States, is prohibited except at the time of slaughter, at any other location upon the death of the animal, or as otherwise approved by the State or Tribal animal health official or Assistant Director when a device needs to be replaced. Record keeping is imperative for traceability purposes and varies slightly between lost and authorized replacement. Those details are provided in this section. Graphic: Ear tags like the orange one in the photo can be replaced as needed by the producer but OFFICIAL tags like the button EID tag in the calf's left ear should not be removed except under the rules described here. <i>Source:</i> <i>USDA</i>
S 1 d e 4 9	Replacing Official Eartags • State, Tribal animal health official or Assistant Director required to authorize replacement for reason other than loss • Deterioration, number unreadable • Infection at site of attachment • Electronic component of RFID • Malfunction, incompatible, inoperable, unacceptable functionality of management system due to device	 Official eartags may be replaced for reasons other than loss when a State or Tribal animal health official or an Assistant Director authorizes it for reasons that include, but are not limited to, the following: Deterioration of the device such that loss of the device appears likely or the number can no longer be read; Infection at the site where the device is attached, necessitating application of a device at another location (e.g., a slightly different location of an eartag); Malfunction of the electronic component of a radio frequency identification (RFID) device; or Incompatibility or inoperability of an RFID device's electronic component with the management system or unacceptable functionality of the management system due to the use of an RFID device.
S 1 d e 5 0	Recording Official Identification Device Replacement • Records maintained for 5 years • Lost and needs a new one • Date applied, official ID number on new and old device (if known) • Authorized replacements • Date removed, contact info for location, official ID number, type of device, reason • New official ID number, type of new device applied	 If an animal loses an official identification device and needs a new one, the person applying the new official identification device must record the following information about the event and maintain the record for 5 years: The date the new official identification device is applied; The official identification number on the device; and The official identification number on the old device, if known. Any time the State or Tribal animal health official or Assistant Director authorizes replacement of an official identification device must record the following information about the event and maintain the record for 5 years: The date on which the device was removed;

		 Contact information for the location where the device was removed; The official identification number (to the extent possible) on the device removed; The type of device removed (e.g., metal eartag, RFID eartag); The reason for the removal of the device; The new official identification number on the replacement device; and The type of replacement device applied.
S 1		Next we will discuss the regulations for interstate movement of livestock as it relates to ADT.
i d e 5 1	Regulations for Interstate Movement	novement of investock as it relates to ADT.
S 1 d e 5 2	<text><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></text>	 When an accredited veterinarian completes an ICVI, he or she will need to forward a copy to the State or Tribe of origin of the shipment within 7 calendar days from the date the ICVI is signed. The State or Tribe of origin is responsible for forwarding copies of the ICVI to the State or Tribe of destination. Traceability information that fully supports disease control, eradication, and surveillance must be maintained for approximately the lifespan of the animal species. For example, the AV must keep a copy of each ICVI or other movement document issued: 2 years for swine and poultry 5 years for cattle, bison, sheep, goats, cervids, and equines Electronic CVIs such as those available in Veterinary Services Process Streamlining (VSPS) as described in NVAP Module 2: Role of Agencies and Health Certificates or other commercially available applications offer an accurate and efficient way to ensure copies are maintained in a legible, searchable, and secure way. Graphic: Copies of interstate movement documents must be kept for 2 years for swine and poultry and 5 years for cattle, bison, sheep, goats, cervids, and equines.



S 1 d e 5 5	Example Certification Statements • Official ID not required on ICVI • Official ID numbers not required to be cattle under 18 months of age." • Official ID numbers not required to be isted on ICVI • 'No ID required. are beef steers." • 'Dairy steers: All animals officially approved tagging site. Animals officially identified to ut need not be listed on this certificate." • 'Dairy spayed heffers: All animals officially identified on article."	 Accredited veterinarians must properly complete all required fields on an ICVI or other approved interstate movement document for livestock. In some cases, certain certification statements may need to be provided to meet the requirements of the ADT rule. This example list is not all inclusive. Contact the State Animal Health Officials in the shipping and receiving States for additional information. If the animals represented on the certificate are not required to be officially identified, the person completing the ICVI would state the exemption that applies. Some examples of statements that might be used include, but are not limited to: o "No ID required. These cattle are beef animals under 18 months of age." o "No ID required. The destination for animals on this certificate is an approved tagging site. Animals will be officially identified upon arrival."
S		 If the animals represented on the certificate are required to be officially identified but the numbers are not required to be listed on the certificate, the person completing the ICVI would state the exemption that applies. Some examples of statements that might be used include, but are not limited to: "Dairy steers: All animals are officially identified but need not be listed on this certificate." "Dairy spayed heifers: All animals are officially identified but the ID number need not be listed on this certificate." Responsibilities of Accredited Veterinarians
1 i d e 5 6	Responsibilities of Accredited Veterinarians	 The responsibilities of accredited veterinarians fall into two categories: Legal—those that are required by law Professional—those that are required by the Veterinarian's Oath as described on the AVMA website



Follow the Instructions of Your Assistant Director According to 9 CFR §161.4, you have agreed to "perform the functions of an accredited veterinarian and carry out all responsibilities under applicable Federal programs and cooperative programs subject to direction provided by the Veterinarian-in-Charge and in accordance with any regulations and instructions issued to the accredited veterinarian by the Veterinarian-in-Charge." The Veterinarian-in-Charge, now called the Assistant Director (AD), is responsible for all VS activities in the State in which you are conducting accredited duties. Since the ADT regulations allow flexibility, you will need to make sure you identify animals, prepare movement documents, and maintain records that the State or Tribe requires in the manner prescribed by your AD.

According to 9 CFR §161.4, accredited veterinarians are specifically responsible for the security and proper use of all of the following:

- Official certificates, forms, records, and reports;
- Tags, bands, or other identification devices; and
- Approved digital signature capabilities.

You must take reasonable care to prevent the misuse or loss of these accountable items. If your accountable property is lost, stolen, destroyed, or deliberately misused, you need to immediately report that to the Assistant Director. Photo: Paperwork used by veterinarians for animal identification and movement documentation. *Source: Andrew Kingsbury, Iowa State University*

As discussed earlier in this module, 9 CFR §86.3 requires accredited veterinarians to keep accurate records of the official identification devices issued, sold, or applied for 5 years using a method with which the numbers can be found in a timely manner (e.g., 24 hours) as instructed by the Assistant Director. Make sure you keep copies of all ICVIs, vaccination records, test charts, and sample submission records for 2 years for swine and poultry and 5 years for cattle and bison, sheep and goats, cervids, and equines.

S 1 d e 6 0	Professional Responsibilities: Client Education • AV is responsible for informing client about proper use and handling of official ID devices including: • D devices and methods approved for various species • D devices and methods approved for various species • Properly applying devices • Importance of not sharing, selling, discarding ID devices • Movement documents required by your State	Many of the official identification devices and methods are applied at the farm level. As an accredited veterinarian, yo have a responsibility to help your clients learn about the proper use and handling of official ID devices, especially i you sell or otherwise provide them to your clients. Some o the things you need to explain include the following: • ID devices and methods approved for various species; • The proper application of the devices:
		 The importance of not sharing, selling, or discarding official ID devices; and The movement documents required by your State. Speakers: Let your audience know that more information for Accredited Veterinarian clients is available on the USDA ADT website or the official identification device manufacturers' website. Accredited Veterinarians may request a thumb drive of important information for their own use by contacting your Assistant Director or the ADT Staff at traceability@aphis.usda.gov.
S 1 i d e 6 1	 Accredited Veterinarians Ensure accurate and efficient traceability Should contact State of destination anytime they are involved in interstate movement Must properly complete all required fields on ICVI May need to provide certification statements to meet ADT requirements 	While this module is not intended to duplicate the information presented in NVAP Module 2: Role of Agencies and Health Certificates, USDA encourages accredited veterinarians (AVs) to understand the requirements and responsibilities in order to help ensure accurate and efficient traceability. This includes accurately completing all the required fields on an ICVI and securing of accountable certificates. You may also need to provide certain certification statements to meet the requirements of the ADT rule. Additionally, accredited veterinarians should contact the State Animal Health Officials in the shipping and receiving States any time they are involved in an interstate movement.
S 1 d e 6 2	Scenario: Interstate Movement of Beef Cattle	Scenario: Interstate Movement of Beef Cattle Presenter: This is the first part of a hypothetical scenario. Please make sure you read all of these details before proceeding as it sets the stage for the learning objectives addressed. On a busy fall day, you are called out to Cattle Crossing Acres to issue an Interstate Certificate of Veterinary Inspection (ICVI) and inspect 10 head of 18 month old bred beef heifers that were sold to a farm in a neighboring state. Upon inspection, the animals are bright, alert, responsive, have no signs of lameness, and have no signs of infectious, contagious, or communicable diseases.

S	ADT Requirements for Cattle	You recall reviewing the Federal Animal Disease
1		Traceability Rule Requirements for Cattle document that
i	Beef Cattle Moving Internation Are the cattle inneally initial and T8 moving of page or citian*	took effect March 11, 2013, and is available in the NVAP
d	KO L Official (Crease) L Collicat (Crease) L Collicat (Crease) L Collicat (Crease) des not apply Amonthing fix an L Coll required Amonthing fix an	Module 12: Animal Disease Traceability web module on
u	R (2.860 movement distance) NOT required	the USDA NVAP website. For beef cattle moving
e	*Exemptions to Official MonthFactors Cafeta are everyed from official distribution to the monitorial 1. Denrythyne an approximation or one Order through a sorther filter to a succeed socialism in the anglend State. 2. Denrythyn an approximationggraph and and are afficially identified an accendence with established protocols.	interstate, there are stipulations regarding official ID
0	A between bugging and receiving States of Makes with Newsteen from of Joseffacture, as agreed opon by animal feadling that the highlight and networking batter of Tribles. Other by a sate storagetariat singularized state of the sate of th	depending on the reproductive ability and age of the
3	Source: Federal Animal Disease Traceability Rule Requirements for Cattle, March 2013 USDX-ARHIS UJJ 2014: Revised August 2016 National Violentriery Accreditation Program Center for Ford Society and August Health	animal. Beef cattle that are not sexually intact or under 18
		months of age are not required to have official ID or
		required to have their ID recorded on interstate movement
		documents, but are required to have an ICVI when being
		transported between States. However, beef cattle that are
		sexually intact and over 18 months of age are required to
		have official ID that is required to be recorded on ICVIs
		when transported interstate. The Cattle Crossing Acres
		heifers are sexually intact and 18 months of age so, YES
		they are required to have an official form of
		identification recorded on an ICVI for interstate
		movement. It is important to remember that, in some
		circumstances, cattle are exempt from having official
		identification. Cattle are exempt from official identification
		when moved:
		1) Directly from a location in one State through another
		State to a second location in the original State.
		2) Directly to an approved tagging site and are officially
		identified in accordance with established protocols.
		3) Between shipping and receiving States or Tribes with
		another form of identification, as agreed upon by animal
		health officials in the shipping and receiving States or
		Tribes.
		4) Directly to a recognized slaughtering establishment or
		directly to no more than one approved livestock facility
		and then to a recognized slaughter establishment.
		The 10 heifers on Cattle Crossing Acres are being
		transported to a farm in a neighboring State, so these
		exemptions do not apply to them.
		Graphic: Flow chart showing whether or not official ID is
		required for beef cattle moving interstate and potential
		exemptions that may apply. Source: USDA, Federal
		Animal Disease Traceability Rule Requirements for Cattle,
		March 2013. Illustration by: Dani Ausen, Iowa State
		University



Recording Official ID Numbers

In preparing to record the heifer's identification numbers on the ICVI, you discover the metal eartags are filthy and hard to read but the farm management ID tags are easier to read. You have a supply of official metal National Uniform Eartag System (NUES) eartags that were issued to you by your State Animal Health Official. While it might be tempting to put in new NUES eartags to save time, ensure the numbers are easily read, and are properly recorded, the CFR **prohibits** applying another official ID in this situation (does not meet exemptions previously described). While it can be time consuming, the best option is to restrain every heifer and clean the existing official metal eartags and record the numbers on the ICVI. Farm identification numbers should not be recorded since farm identification is not considered official.

Upon inspection of the now cleaner official metal eartags, there is no evidence of infection at the site of the tag and the numbers are all readable. If that was not the case, the State or Tribal animal health official or the Assistant Director could authorize replacement of an official tag under the provisions of the CFR. If a tag were to be replaced, you must keep records about the event for 5 years and include the date, contact information for the beef operation where the device was removed, and why; official ID number, type of device removed; and new official ID number and type of replacement device.

Photo: These beef heifers have dirty official metal eartags and farm ID tags in their right ears. *Source: Boehringer Ingelheim Vetmedica, Inc.*

Once the IDs are recorded, you recall learning about possible certification statements that may be needed on the ICVI. It is best to contact the State Animal Health Official in **both** the shipping and receiving States for clarification on which certification statements are needed. Depending on the livestock species, age of the animal, and type of movement, they will advise if additional statements are required.

For this particular hypothetical interstate movement scenario, the State Animal Health Official in both the shipping and receiving states advise there are no additional certification statements needed. All required fields are properly completed and you give your client the designated page of the ICVI to accompany the shipment. As an accredited veterinarian, you have 7 calendar days to submit the designated pages to the shipping State and you must

		keep a copy of this ICVI for 5 years. This is important for traceability purposes and does vary by species based on their lifespan. Copies of ICVIs issued for swine and poultry must be kept for 2 years. Graphic: An ICVI that needs to be submitted to the shipping State within 7 calendar days and kept on record by the AV for 5 years. <i>Source: Nebraska Department of</i> <i>Agriculture. Illustration by: Dani Ausen, Iowa State</i> <i>University</i>
S	Conclusion	This concludes the Animal Disease Traceability module.
1 i d e 6 6	Aspects of Animal Disease Traceability (ADT) Official ID devices and methods Documentation of interstate movement for traceability Regulations for interstate movement Responsibilities of accredited veterinarians regarding ADT More information from Assistant Director or ADT Staff	 You should have all the information you need to: Explain the aspects of Animal Disease Traceability (ADT) to clients and the public; List the official identification devices and methods used for different livestock species; Explain how documentation of interstate movement of livestock is necessary for effective traceability; Locate the regulations governing the interstate movement of different species of livestock; and Describe the responsibilities of an accredited veterinarian with respect to ADT, specifically Title 9 of the Code of Federal Regulations (CFR) Part 86 and Part 161. You are encouraged to review the resources provided in this module for more detailed information. If you need
		further clarification or additional information at any time,
		feel free to contact your AD or the ADT Staff at:
S		<u>traceaonity@apris.usda.gov</u> . This informational presentation has been approved
S 1 i d e 6 7	Supplemental Training • This informational presentation has been approved expressly to serve as one unit of supplemental training for participants in USDA's NVAP • Please ensure you complete, sign, and retain a certificate stating that you attended this presentation • Contact your VS District Office for more details	expressly to serve as one unit of supplemental training for participants in USDA's National Veterinary Accreditation Program. Please ensure you complete, sign and retain a certificate stating that you attended this presentation. Contact your VS District Office for more details on renewing your accreditation.

