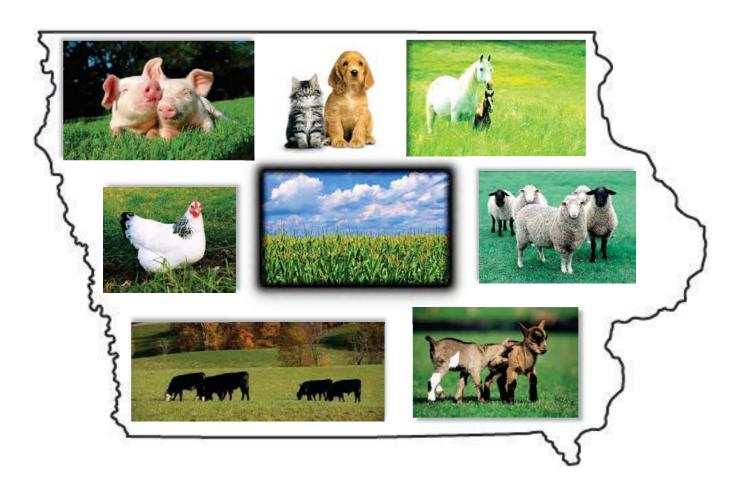
Iowa Veterinary Accreditation Handbook







Notice

Every effort is made to provide you accurate and up to date information, including contact information. However, phone numbers, policies and procedures can change. When important changes do take place, the current information can be acquired on the Iowa Department of Agriculture & Land Stewardship website:

http://www.iowaagriculture.gov/

Important changes can also be acquired on the USDA-APHIS Veterinary Services website:

https://www.aphis.usda.gov/aphis/ourfocus/animalhealth

Please check frequently for updates!

Last updated: July 2019

Table of Contents

•	Accidentation compliance regulations	10
•	Animal Disease Traceability(ADT)/Livestock Official ID	21
•	APHIS VS Form 10-11 (Coggins Form)	45
•	APHIS VS Form 17-140 Livestock International Health Certificate	39
•	APHIS VS Form 7001 International CVI Small Animal	38
•	Bovine Trichomoniasis	85
•	Brucellosis Accreditation Uniform Methods & Rules	65
•	Brucellosis Program	57
•	Brucellosis Testing Information	58
•	Canine Brucellosis Overview	93
•	Cattle Breed Codes	24
•	Cervid TB Training & Certification	55
•	Completing Brucellosis Test Records	61
•	Completing Brucellosis Vaccination Records	63
•	Completing Scrapie Test Records	70
•	Completing Tuberculosis Test Records	53
•	Equine Infectious Anemia	44
•	EquusLINK Digital Equine Health Certification	48
•	Genetics of Scrapie Resistance for Rams	67
•	Helpful Links	98
•	IDALS Form-Dog/Cat CVI	30
•	IDALS Form-M Intrastate CVI	31
•	IDALS Form-O Livestock Interstate CVI	29
•	IDALS State Inspector Map	16
•	IDALS Tips on Filling out CVI's	28
•	Intrastate Movement of Cervids	92
•	Iowa Bovine Trichomoniasis Response Plan	87
•	Iowa Federal AHT Map	15
•	Iowa IDALS Regulatory VMO Map	13
•	Iowa IDALS/USDA VMO Cooperative Map	14
•	Iowa Premises Identification Program	26
•	Iowa Reportable Diseases	17
•	Iowa Scrapie Program	66
•	Iowa State Veterinary Diagnostic Laboratory (ISU VDL)	7
•	Iowa USDA Regulatory VMO Map	12
•	Iowa's CWD Herd Certification Program (HCP)	88
•	IRVIN	97
•	Johne's C-punch Verification Form	83
•	Johne's Disease	73
•	Johne's Owner-Shipper Statement	84
•	Johne's Vaccination Agreement	81
•	Keeping Canine Brucellosis out of Your Kennel	95
•	NAHERC	96
•	National Veterinary Accreditation Program (NVAP)	8

Table of Contents

•	National Veterinary Services Laboratory (NVSL)	6
•	Official Scrapie Resistance Genotype Testing	68
•	Owner Shipper Statement	32
•	Potential Accreditation Violations	9
•	Pseudorabies Program	72
•	State & Federal Regulatory Responsibilities	11
•	State Codes	25
•	Tuberculin & Its Application	51
•	Tuberculosis Accreditation Uniform Methods & Rules	56
•	Tuberculosis Overview	49
•	Tuberculosis Testing Information	50
•	USDA APHIS Order Form	43
•	USDA APHIS Reportable Diseases	20
•	USDA Import & Export Requirements for Animals	34
•	Useful Information-AD & SAHO Office Information	5
•	VS Form 4-24 Brucellosis Vaccination Record	62
•	VS Form 4-33 Brucellosis Test Record	59
•	VS Form 5-29 Scrapie Test Record	69
•	VS Form 6-22 Tuberculosis Test Record	52
•	VSPS eCVI	33

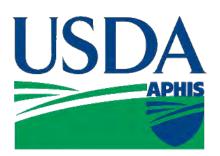
USEFUL INFORMATION

Kevin L. Petersburg, Area Veterinarin In Charge

USDA/APHIS/VS 210 Walnut St, Room 891 Des Moines, IA 50309 Phone: (515) 284-4140

Fax: (515) 323-2286

Kevin.L.Petersburg@aphis.usda.gov



Jeff Kaisand, State Veterinarian

IDALS, Animal Industry Wallace Building, 2nd Floor 502 E 9th Street Des Moines, IA 50319

Phone: (515) 281-0866 Fax: (515) 281-4282

Jeff.Kaisand@iowaagriculture.gov



USDA APHIS Veterinary Services Homepage

https://www.aphis.usda.gov/aphis/home/

IDALS Animal Industry Bureau Homepage

http://www.iowaagriculture.gov/animalIndustry.asp

Laboratory Contact Information

For specific information on samples required, samples accepted and special handling and mailing instructions, please contact the laboratory directly.

For more information on National Animal Health Laboratories:

www.aphis.usda.gov/nahln

For a list of all NAHLN labs:

http://www.aphis.usda.gov/animal health/nahln/downloads/all nahln lab list.pdf

National Veterinary Services Laboratory (NVSL)

USDA-APHIS-VS-NVSL 1920 Dayton Ave. Ames, IA 50010

Phone: (515) 337-7212 and (515) 663-7551

Fax: (515) 337-7569

Email: NVSL Concerns@aphis.usda.gov



For more information on NVSL:

www.aphis.usda.gov/nvsl

Frequently asked questions NVSL:

https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/lab-info-services/sa nvsl faqs/ct faq

Lab Related Forms:

https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/labinfo- services/sa forms publications/ct forms publications

VS Submission Form 10-4:

https://www.aphis.usda.gov/library/forms/pdf/VS Form10 4.pdf

IOWA STATE UNIVERSITY

College of Veterinary Medicine

Veterinary Diagnostic Laboratory

https://vetmed.iastate.edu/vdl 1850 Christensen Dr. Ames, IA 50011-1134

Phone: (515) 294-1950 (Monday-Friday 8am-5pm)

Phone: (515) 290-1969 (after hours)

Fax: (515) 294-3564 (Main office)

Fax: (515) 294-6961 (Submission desk)

Email: isuvdl@iastate.edu

ISU VDL Client Web Portal

https://vetmed.iastate.edu/vdl/resources/client-services/isu-vdl-client-web-portal

ISU Forms

https://vetmed.iastate.edu/vdl/submissions/forms

Diagnostic Tests

https://vetmed.iastate.edu/vdl/diagnostic-tests/

Submission Information

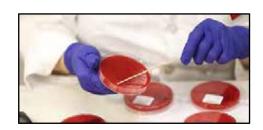
https://vetmed.iastate.edu/vdl/submissions/guidelines

Rabies Testing Information

https://vetmed.iastate.edu/vdl/submissions/rabies

ISU VDL EZ-Ship Program

https://vetmed.iastate.edu/vdl/submissions/packing-and-shipping/ez-ship-program





The National Veterinary Accreditation Program (NVAP) has many varied facets. Therefore, we deemed it more appropriate to provide links to common parts of the program. As always, you may contact the APHIS, VS Iowa Area Office at (515)284-4140 for questions or problems.

NVAP Homepage

https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/nvap

APHIS Approved Supplemental Training Modules

https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/nvap/ct_aast

NVAP Accreditation Renewal

https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/nvap/ct_renewal

Accreditation Application Form1-36A

https://www.aphis.usda.gov/animal_health/vet_accreditation/downloads/vs1-36a.pdf

NVAP Reference Guide (provides detailed Summary of Accreditation standards and guidance)

http://www.aphis.usda.gov/animal health/vet accreditation/downloads/nvap ref guide.pdf

NVAP CFR

http://www.aphis.usda.gov/animal health/vet accreditation/downloads/CFR Parts 160-161-162.pdf

VSPS (VETERINARY SERVICES PROCESS STREAMLINING)

As an accredited veterinarian you can use the United States Department of Agriculture (USDA), Veterinary Services Process Streamlining (VSPS) to submit an online application for your renewal in the NVAP and to utilize their free system to create electronic certificates of veterinary inspection (eCVI) or online Coggins forms which will allow you to attach color photos to your VS 10-11.

Access to the NVAP module only requires a level one eAuthentication while access to creating eCVI or the online Coggins requires a level two eAuthentication access.

To learn more about creating an account to apply for renewal on-line follow this URL:

http://www.aphis.usda.gov/animal health/vet accreditation/downloads/renewal online process.pdf

Potential Accreditation Violations

Failure to comply fully with the standards may cause removal from the list of accredited veterinarians.

Following are examples some of the acts which jeopardize accreditation:

- 1. Failure to report private tuberculosis tests.
- 2. Accepting blood samples for regulatory diseases which were not drawn by an accredited veterinarian.
- 3. Failure to palpate the site of injection for the reading of the tuberculosis skin test.
- 4. Brucellosis vaccination of calves of improper age.
- 5. Brucellosis vaccination of calves without (a) proper tattoo and (b) official ear tag or registration tattoo number.
- 6. Issuing health certificates containing incomplete information or data not based on facts.
- 7. Issuing health certificates for livestock or poultry which have not been examined on the day indicated by the certificate.
- 8. Failure to submit proper copies of interstate health certificates to the State office within 7 days.
- 9. Advising persons to commit acts contrary to applicable State / Federal laws and regulations.
- 10. Failure to immediately report to State or Federal officials all diagnosed or suspected cases of foreign animal diseases such as classical swine fever, foot and mouth disease, vesicular stomatitis, rinderpest, African swine fever, Avian Influenza and Newcastle disease of poultry or any other foreign animal disease.
- 11. Failure to cooperate with County / State / Federal regulatory employees; in furnishing information and records in relation to all work coming within the scope of accreditation.
- 12. Participation in false monetary claims, against the State or Federal agency or making false statements on official forms.

ACCREDITATION COMPLIANCE REGULATIONS

What happens when a veterinarian breaks the Accreditation Agreement?

Most of the time when an error has been made, a VMO or State District Veterinarian is asked to talk to the veterinarian. At the time of that visit, the two will determine what happened and how best to avoid the error in the future. The VMO or State District Veterinarian is required to write a report to the AD concerning the meeting and what was decided in order to avoid the situation in the future. Once the AD receives the report, it is reviewed and a file is made. Alternatively, the AD may send a letter of instruction or warning, depending on the nature of the error, these letters are also placed in the veterinarian's file. If the same mistake is made again, repeatedly, or if several other problems arise concerning this veterinarian's accreditation, or if the AD has reason to believe that fraud or other serious violation has occurred, the AD can request that an Investigator for APHIS visit the veterinarian to determine if there is sufficient evidence available to call the veterinarian in for an informal or formal conference.

What will occur at the conference?

At the time of the conference, the following individuals will be present:

- 1. APHIS Compliance Officer (IES-Investigative and Enforcement Services)
- 2. Assistant Director (AD)
- 3. State Veterinarian or a representative from that office

The veterinarian in question will be given an opportunity to explain exactly what had occurred and the group will determine if there is cause for further action, i.e. a formal hearing or further legal action.

Further action may include:

- 1. Loss of accreditation.
- 2. Loss of license to practice veterinary medicine.
- 3. Fines, up to \$1000 per count.
- 4. In extreme cases, a jail term.

STATE RESPONSIBILITIES

- 1. Investigation of Swine TB
- 2. Chronic Wasting Disease
- 3. Inspections and licensing of:
 - a. Kennels and pet shops
 - b. Hatcheries
 - c. Rendering plants
- 4. Licensing of feeder pig and livestock dealers
- 5. Animal Welfare investigations
- 6. Investigations of other State reportable diseases (Trichomoniasis, Johne's, Canine brucellosis, etc.)
- 7. Investigations of public complaints that allege violation of State Animal Health Laws
- 8. Supplies such as ear tags and interstate health certificates
- 9. Horse and Dog Breeders Program

FEDERAL RESPONSIBILITIES

- 1. Export -- Approval of isolation facilities and endorsement of certificates
- 2. Approval of slaughtering establishments to handle imported animals
- 3. Approval and inspection of establishments that receive certain animal and poultry products that are imported to the United States
- 4. Animal Welfare -- This is handled by the Animal Care Staff at Ft. Collins, CO
- 5. Issuing tag numbers for plastic tags for breeding swine
- 6. Issuing flock ID's and scrapie tags for sheep flocks

COOPERATIVE BETWEEN STATE AND FEDERAL

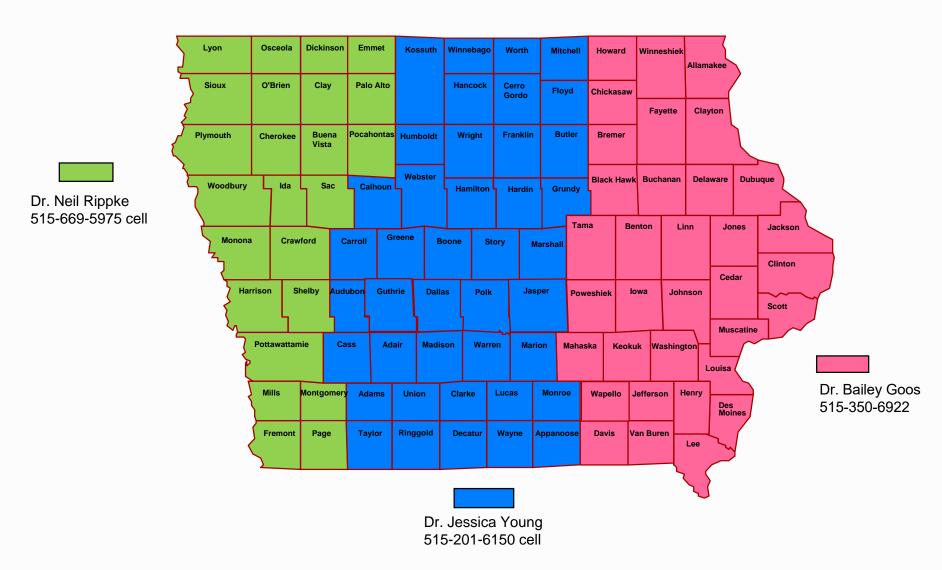
- 1. Pseudorabies investigations and herd clean-up plans
- 2. Brucellosis investigation and testing
- 3. Bovine and Cervidae Tuberculosis, including comparative-cervical testing
- Auction Market inspections and regulatory work involving movement of livestock
- 5. National Animal Health Monitoring and Surveillance
- 6. Foreign animal disease investigations
- 7. Scrapie
- 8. Animal Disease Traceability (ADT)



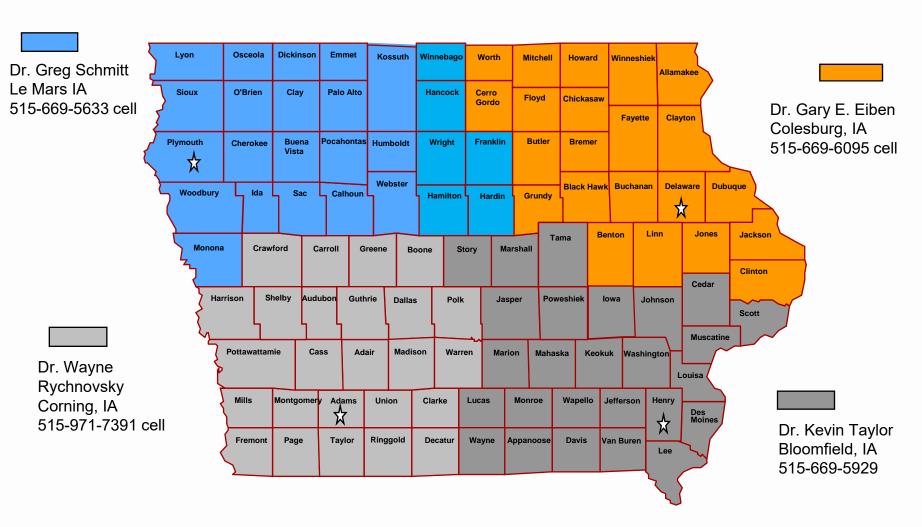
IOWA DEPARTMENT OF



Iowa Federal VMO Sections



STATE VETERINARIAN DISTRICTS

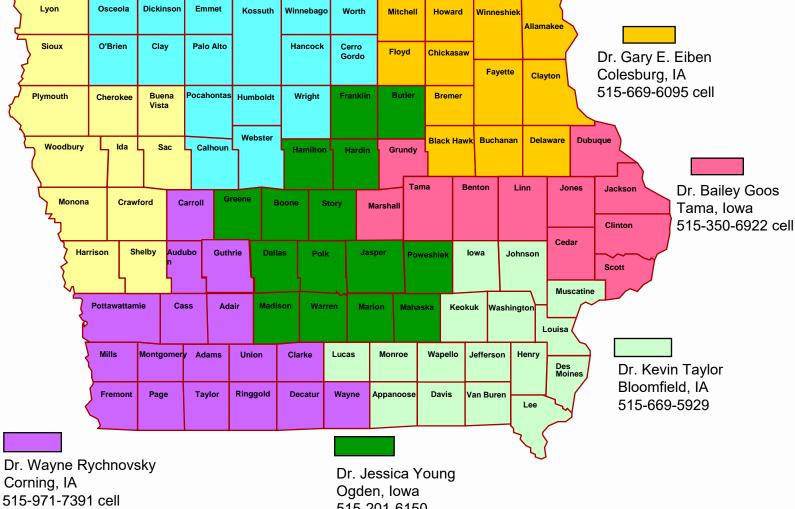


Dr. Jeff Kaisand - State Veterinarian 515-281-0866 - office; 515-240-6632 - cell

Dr. Katie Rumsey--Assistant State Veterinarian 515-725-1023--office; 515-422-6765--cell

Iowa: State/Federal **Co-op VMO Sections**

Dr. Greg Schmitt Le Mars, IA 515-669-5633 cell



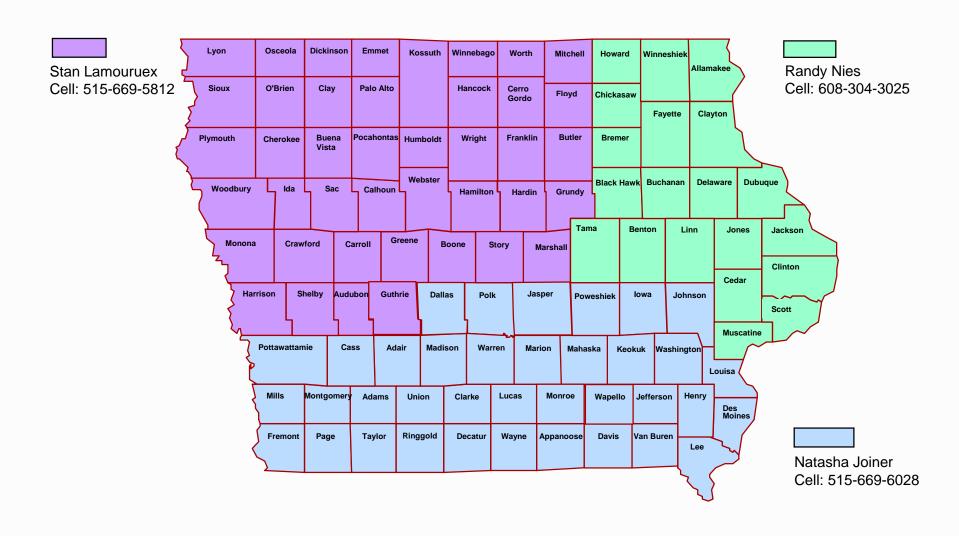
Dr. Neil Rippke

515-669-5975 cell

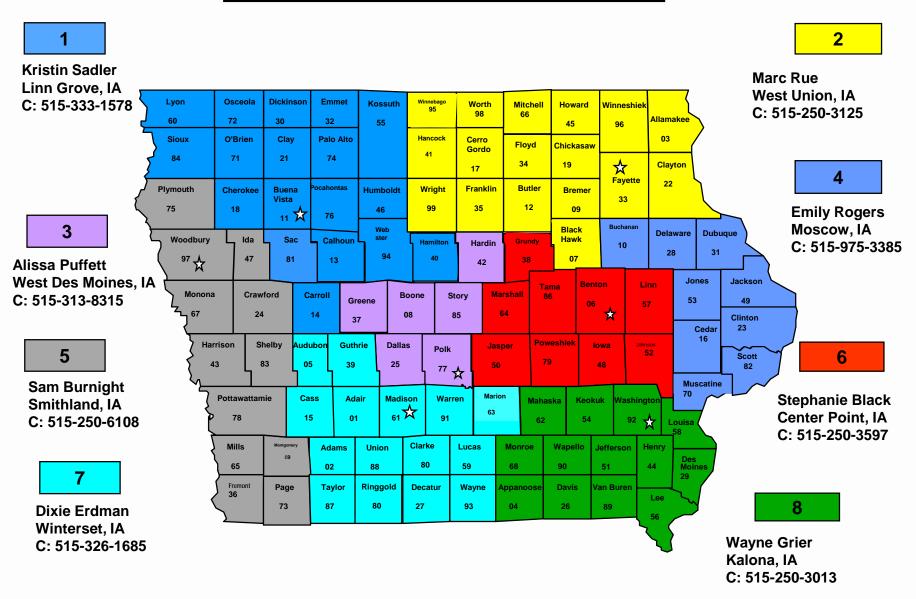
Moville, IA

515-201-6150

Iowa Federal AHT Sections



STATE LIVESTOCK INSPECTOR DISTRICTS



CHAPTER 64 INFECTIOUS AND CONTAGIOUS DISEASES

[Appeared as Ch 1, 1973 IDR]
[Ch 16, IAC 7/1/75 renumbered as 11.3, 12.1 to 12.33, and 16.24 and 16.25 renumbered 16.6 and 16.7 as per written instructions from Ag. Dept. 10/11/77]
[Prior to 7/27/88, see Agriculture Department 30—Ch 16]

21—64.1(163) Reporting disease. Whenever any person or persons who shall have knowledge of the existence of any infectious or contagious disease, such disease affecting the animals within the state or resulting in exposure thereto, which may prove detrimental to the health of the animals within the state, it shall be the duty of such person or persons to report the same in writing to the State Veterinarian, Bureau of Animal Industry, Wallace State Office Building, Des Moines, Iowa 50319, who shall then take such action as deemed necessary for the suppression and prevention of such disease. The diseases as classified by the Office International Des Epizooties are included. The following named diseases are infectious or contagious and the diagnosis or suspected diagnosis of any of these diseases in animals must be reported promptly to the Iowa department of agriculture and land stewardship by the veterinarian making the diagnosis or suspected diagnosis:

64.1(1) *Multiple species diseases.*

- Anthrax
- Aujeszky's disease
- Bluetongue
- Brucellosis (Brucella abortus)
- Brucellosis (Brucella melitensis)
- Brucellosis (Brucella suis)
- Crimean Congo haemorrhagic fever
- Echinococcosis/hydatidosis
- Epizootic haemorrhagic disease
- Equine encephalomyelitis (Eastern)
- Foot and mouth disease
- Heartwater
- Japanese encephalitis
- Johne's disease
- Leptospirosis
- New world screwworm (Cochliomyia hominivorax)
- Old world screwworm (Chrysomya bezziana)
- O fever
- Rabies
- Rift Valley fever
- Rinderpest
- Surra (Trypanosoma evansi)
- Trichinellosis
- Tularemia
- Vesicular stomatitis
- West Nile fever

64.1(2) *Cattle diseases.*

- Bovine anaplasmosis
- Bovine babesiosis
- Bovine genital campylobacteriosis
- Bovine spongiform encephalopathy
- Bovine tuberculosis
- Bovine viral diarrhoea
- Contagious bovine pleuropneumonia
- Enzootic bovine leukosis

- Haemorrhagic septicaemia
- Infectious bovine rhinotracheitis/infectious pustular vulvovaginitis
- Lumpy skin disease
- Theileriosis
- Trichomonosis
- Trypanosomosis (tsetse-transmitted)

64.1(3) *Swine diseases.*

- African swine fever
- Classical swine fever
- Nipah virus encephalitis
- Porcine cysticercosis
- Porcine reproductive and respiratory syndrome
- Swine vesicular disease
- Transmissible gastroenteritis

64.1(4) Sheep and goat diseases.

- Caprine arthritis/encephalitis
- Contagious agalactia
- Contagious caprine pleuropneumonia
- Enzootic abortion of ewes (ovine chlamydiosis)
- Maedi-visna
- Nairobi sheep disease
- Ovine epididymitis (Brucella ovis)
- Peste des petits ruminants
- Salmonellosis (S. abortusovis)
- Scrapie
- Sheep pox and goat pox

64.1(5) *Equine diseases.*

- African horse sickness
- Contagious equine metritis
- Dourine
- Equine encephalomyelitis (Western)
- Equine infectious anaemia
- Equine influenza
- Equine piroplasmosis
- Equine rhinopneumonitis
- Equine viral arteritis
- Glanders
- Venezuelan equine encephalomyelitis

64.1(6) *Avian diseases.*

- Avian chlamydiosis
- Avian infectious bronchitis
- Avian infectious laryngotracheitis
- Avian mycoplasmosis (M. gallisepticum)
- Avian mycoplasmosis (M. synoviae)
- Duck virus hepatitis
- Fowl cholera
- Fowl typhoid
- Highly pathogenic avian influenza and low pathogenic avian influenza in poultry
- Infectious bursal disease (Gumboro disease)
- Marek's disease
- Newcastle disease
- Pullorum disease

- Turkey rhinotracheitis
- **64.1(7)** Lagomorph diseases.
- Myxomatosis
- Rabbit haemorrhagic disease

64.1(8) *Fish diseases.*

- Epizootic haematopoietic necrosis
- Epizootic ulcerative syndrome
- Gyrodactylosis (Gyrodactylus salaris)
- Infectious haematopoietic necrosis
- Infectious salmon anaemia
- Koi herpesvirus disease
- Red sea bream iridoviral disease
- Spring viraemia of carp
- Viral haemorrhagic septicaemia

64.1(9) *Mollusc diseases.*

- Infection with abalone herpes-like virus
- Infection with Bonamia exitiosa
- Infection with Bonamia ostreae
- Infection with Marteilia refringens
- Infection with Perkinsus marinus
- Infection with Perkinsus olseni
- Infection with Xenohaliotis californiensis

64.1(10) Crustacean diseases.

- Crayfish plague (Aphanomyces astaci)
- Infectious hypodermal and haematopoietic necrosis
- Infectious myonecrosis
- Taura syndrome
- White spot disease
- White tail disease
- Yellowhead disease

64.1(11) Amphibian diseases.

- Infection with Batrachochytrium dendrobatidis
- Infection with ranavirus

64.1(12) *Other diseases.*

- Camel pox
- Chronic wasting disease
- Leishmaniosis

Reporting is required for any case or suspicious case of an animal having any disease that may be caused by bioterrorism, epidemic or pandemic disease, or novel or highly fatal infectious agents or biological toxins and that might pose a substantial risk of a significant number of animal fatalities, incidents of acute short-term illness in animals, or incidents of permanent or long-term disability in animals.

This rule is intended to implement Iowa Code sections 163.1, 163.2, 189A.12, 189A.13 and 197.5. [ARC 9102B, IAB 9/22/10, effective 9/1/10; ARC 0230C, IAB 7/25/12, effective 8/29/12]

[Filed March 12, 1962]

[Filed 12/21/76, Notice 11/3/76—published 1/12/77, effective 2/17/77]

[Filed 1/13/84, Notice 12/7/83—published 2/1/84, effective 3/7/84]

[Filed emergency 3/9/84—published 3/28/84, effective 3/9/84]

[Filed 5/4/83, Notice 3/28/84—published 5/23/84, effective 6/27/84]

[Filed emergency 7/8/88 after Notice 6/1/88—published 7/27/88, effective 7/8/88]

[Filed 11/27/96, Notice 10/23/96—published 12/18/96, effective 1/22/97]

[Filed 3/28/02, Notice 2/6/02—published 4/17/02, effective 5/22/02]

USDA APHIS Reportable Diseases

https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/monitoring-and-surveillance/sa nahss/status-reportable-disease-us

National Animal Health Monitoring System (NAHMS)

https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/monitoring-and-surveillance/nahms

Animal Health Surveillance USDA APHIS VS

https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/monitoring-and-surveillance/SA NAHSS



USDA Avian Influenza Defend the Flock

https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/animal-disease-information/avian-influenza-disease

USDA APHIS Biosecurity for Birds

https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/animal-disease-information/avian-influenza-disease/birdbiosecurity

Animal Disease Traceability (ADT)

The U.S. Department of Agriculture (USDA) provides various programs that support the economic viability of animal agriculture. The Veterinary Services (VS) unit of the Animal and Plant Health Inspection Service (APHIS) works to improve health, productivity, and quality of life for animals and people and maintain and promote the safety and availability of animals, animal products, and veterinary biologics.

In early 2010, USDA Secretary Thomas J. Vilsack announced a new approach for responding to and controlling animal diseases, referred to as the Animal Disease Traceability (ADT) framework. Key principles of the framework include:

- Application to animals moved in interstate commerce.
- Administration by the States and Tribal Nations to increase flexibility.
- Encouraging the use of lower cost technology.
- Transparent implementation through the full Federal rulemaking process.

USDA published a proposed rule, "Traceability for Livestock Moving Interstate," on August 11, 2011. The final rule was published on January 9, 2013. The regulations improve the ability of animal health officials to trace livestock when disease is found. The program must have a high level of compliance to achieve a solid infrastructure for tracing livestock.

The "Traceability for Livestock Moving Interstate" regulation establishes requirements for the official identification of livestock and documentation for certain interstate movements at title 9 of the *Code of Federal Regulations* (9 CFR), part 86. Covered livestock include cattle and bison; horses and other equine species; poultry, sheep, and goats; swine; and captive cervids. Animals of these species, unless otherwise exempt, are required to be officially identified and accompanied by an Interstate Certificate of Veterinary Inspection (ICVI) or other movement documentation. These identification and documentation requirements provide basic information essential for traceability and are the main elements for monitoring compliance. Certain disease program requirements pertaining to traceability will be considered in monitoring compliance. In addition to APHIS regulations, the criteria and policies defined in the ADT General Standards document and guidance documents will also be considered part of the monitoring activities.

ADT Summary of Federal Interstate Movement Requirements by Species http://www.iowaagriculture.gov/animalIndustry/IVAH/ADT.pdf

AnimalDiseaseTraceability

USDA Animal Disease Traceability Home Page:

https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/SA Traceability



https://www.aphis.usda.gov/newsroom/2012/12/pdf/traceability_final_rule.pdf



https://www.aphis.usda.gov/traceability/downloads/ADT standards.pdf

Summary of General Requirements by Species:

https://www.aphis.usda.gov/traceability/downloads/ADT summary species.pdf

Questions & Answers ADT Final Rule:

https://www.aphis.usda.gov/traceability/downloads/rule movement general.pdf

Official Ear Tags-Criteria & Options:

https://www.aphis.usda.gov/traceability/downloads/ADT eartags criteria.pdf

Approved Animal Identification Number (AIN) Devices:

https://www.aphis.usda.gov/traceability/downloads/ADT_device_ain.pdf

Approved National Uniform Eartagging System(NEUS):

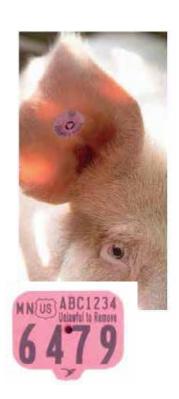
https://www.aphis.usda.gov/traceability/downloads/ADT device nues.pdf

Approved Premises Identification Number Devices (PIN) for Swine:

https://www.aphis.usda.gov/traceability/downloads/ADT_device_swine.pdf







Official Tags: Record, Do Not Remove or Replace

Recording all ID also means that all management/farm ID should be recorded as well. When recording management identification, always try to associate a color with whatever you record. In other words, an animal with a Yellow 45 tag might be recorded as Y45. Colors beginning with similar letters should use a 2- or 3-letter code for clarification (BLK = Black, BLU = Blue, BRN = Brown, etc.). Sometimes a farm may have more than one animal with "45" on their tag, so denoting the color of the tag on the test chart helps distinguish between animals from a distance. Tattoos should always be recorded even if you cannot read the whole tattoo. Please note the location of the tattoo plus what you can read, with question marks representing whatever parts of the tattoo are unclear.

This is extremely important if we are to track animals accurately. We must continuously strive to make sure our test charts are as complete and accurate as possible. Imagine how hard it must be to track animals and test charts when the person who performed the CFT and the person performing the CCT recorded different IDs on the same animal. We can make it a lot easier on everybody from the epidemiologist to the folks working at the laboratory to the office staff entering test information if we record all forms of identification on our test charts.

Yes, it's sometimes hard to record all of those identification numbers, but it is necessary. If you feel that you cannot get all of the identification numbers using the testing set-up you have in place on a given farm, then you should strive to set it up in a manner allowing you to get all identification. If you're using an electronic reader or have too many ID's to fit on the test chart, then you should have additional paper with you on the farm to record additional ID's or notes if necessary. A copy of these notes should be attached to the test chart when you turn it in.

When a herd is identified with an unusual form of ID, please make a note to tell us what kind of ID it is (ex: registration number, microchip. etc.). Sometimes the form of ID is obvious to office staff, other times it is not.

Breed codes can be critical as well. When doing a trace test or trying to find an exposed animal, the veterinarian tracing it must try to identify the animal in a herd. If it's a cross-breed but is clearly predominantly one breed, then use the apparent breed code. In other words, if it walks like a Polled Hereford, talks like a Polled Hereford, and acts like a Polled Hereford, then it *is* a Polled Hereford for all practical purposes.

Finally, be sure to complete the "STATUS" column of the CFT chart. This column is CRITICAL to accredited herds. We use this field to denote Natural Additions, Purchased Additions, and Retagged animals.

Sometimes it is necessary to get creative on test charts. If you use any unusual notations on your test chart, make a note on the chart explaining what your notations mean, otherwise it may delay processing and could hold up somebody's quarantine release or herd accreditation. If an animal is a retag, try to include the old tag number if there's any way to confirm it.

CATTLE BREED CODES

AB	Abondance	DE	Devon	NM	Normande
AF	Africander	DF	Dutch Friesian	NR	Norwegian Red
AG	Angus	DJ	Danish Jersey	NS	Not Specified
AK	Ankina	DR	Dexter	OR	Romagnola
AL	Aldemeey	DS	South Devon	OT	Other
AM	Amerisax	DW	Danish Red & White	PA	Parthenais
AN	Aberdeen Angus	DX	Dairy Crossbred	PI	Piedmont
AR	Red Angus	ER	Eringer	PR	Pie Rouge
AW	Ankole Watusi	FA	Flamand	PS	Polled Shorthorn
AY	Ayrshire	FB	Belgium Friesian	PZ	Pinzgauer
BA	Barzona	FL	Fleckvieh	RA	Ranger
BB	Belgium Blue	FR	Fribourg	RB	Red Brangus
BC	Brockle Face	GD	Galloway (Dairy)	RD	Red Dane
BD	Blonde D'Auitaine	GR	Groninger	RE	Red
BE	Beefalo	GS	Gascone	RH	Red Holstein
BF	Beef Friesian	GU	Guernsey	RN	Roan (Blue or Red)
BG	Belted Galloway	GV	Gelbvieh	RO	Rotbunte
ВН	Brahmental	HC	Hays Converter	RP	Red Poll
	51 1		I I a was fra wal	D\A/E	Dod Misto Food
BK	Black	HE	Hereford	RWF	Red, White Face
BK BL	Brindle	HE	Hereford Horned Hereford	SA	Salers
BL	Brindle	нн	Horned Hereford	SA	Salers
BL BM	Brindle Beef Master	HH HO	Horned Hereford Holstein	SA SB	Salers Simbrah
BL BM BN	Brindle Beef Master Brangus	НН НО НР	Horned Hereford Holstein Hereford-Polled	SA SB SD	Salers Simbrah Shorthorn Dairy
BL BM BN BO	Brindle Beef Master Brangus Braford	HH HO HP HS	Horned Hereford Holstein Hereford-Polled Scotch Highland	SA SB SD SG	Salers Simbrah Shorthorn Dairy Santa Gertrudis
BL BM BN BO BR	Brindle Beef Master Brangus Braford Brahman	HH HO HP HS HY	Horned Hereford Holstein Hereford-Polled Scotch Highland Hybrid (Alberta)	SA SB SD SG SH	Salers Simbrah Shorthorn Dairy Santa Gertrudis Shorthorn Beef
BL BM BN BO BR BS	Brindle Beef Master Brangus Braford Brahman Brown Swiss	HH HO HP HS HY JE	Horned Hereford Holstein Hereford-Polled Scotch Highland Hybrid (Alberta) Jersey	SA SB SD SG SH SM	Salers Simbrah Shorthorn Dairy Santa Gertrudis Shorthorn Beef Simmental
BL BM BN BO BR BS BT	Brindle Beef Master Brangus Braford Brahman Brown Swiss Brahmanstein	HH HO HP HS HY JE KB	Horned Hereford Holstein Hereford-Polled Scotch Highland Hybrid (Alberta) Jersey Kobe (Wagyu)	SA SB SD SG SH SM SX	Salers Simbrah Shorthorn Dairy Santa Gertrudis Shorthorn Beef Simmental Susses
BL BM BN BO BR BS BT BU	Brindle Beef Master Brangus Braford Brahman Brown Swiss Brahmanstein Braunvieh	HH HO HP HS HY JE KB	Horned Hereford Holstein Hereford-Polled Scotch Highland Hybrid (Alberta) Jersey Kobe (Wagyu) Kerry	SA SB SD SG SH SM SX TA	Salers Simbrah Shorthorn Dairy Santa Gertrudis Shorthorn Beef Simmental Susses Tarentaise
BL BM BN BO BR BS BT BU BWF	Brindle Beef Master Brangus Braford Brahman Brown Swiss Brahmanstein Braunvieh Black, White Faced	HH HO HP HS HY JE KB KE	Horned Hereford Holstein Hereford-Polled Scotch Highland Hybrid (Alberta) Jersey Kobe (Wagyu) Kerry Limousin	SA SB SD SG SH SM TA TG	Salers Simbrah Shorthorn Dairy Santa Gertrudis Shorthorn Beef Simmental Susses Tarentaise Tasmanian Grey
BL BM BN BO BR BS BT BU BWF	Brindle Beef Master Brangus Braford Brahman Brown Swiss Brahmanstein Braunvieh Black, White Faced Beef Not Specified	HH HO HP HS HY JE KB KE LM	Horned Hereford Holstein Hereford-Polled Scotch Highland Hybrid (Alberta) Jersey Kobe (Wagyu) Kerry Limousin Lincoln Red	SA SB SD SG SH SM TA TG TL	Salers Simbrah Shorthorn Dairy Santa Gertrudis Shorthorn Beef Simmental Susses Tarentaise Tasmanian Grey Texas Longhorn
BL BM BN BO BR BS BT BU BWF BX CA	Brindle Beef Master Brangus Braford Brahman Brown Swiss Brahmanstein Braunvieh Black, White Faced Beef Not Specified Chianina	HH HO HP HS HY JE KB KE LM LR	Horned Hereford Holstein Hereford-Polled Scotch Highland Hybrid (Alberta) Jersey Kobe (Wagyu) Kerry Limousin Lincoln Red Luing	SA SB SD SG SH SM TA TG TL WB	Salers Simbrah Shorthorn Dairy Santa Gertrudis Shorthorn Beef Simmental Susses Tarentaise Tasmanian Grey Texas Longhorn Welsh Black
BL BM BN BO BR BS BT BU BWF BX CA CB	Brindle Beef Master Brangus Braford Brahman Brown Swiss Brahmanstein Braunvieh Black, White Faced Beef Not Specified Chianina Charbray	HH HO HP HS HY JE KB KE LM LR LU MA	Horned Hereford Holstein Hereford-Polled Scotch Highland Hybrid (Alberta) Jersey Kobe (Wagyu) Kerry Limousin Lincoln Red Luing Maine Anjou	SA SB SD SG SH SM TA TG TL WB	Salers Simbrah Shorthorn Dairy Santa Gertrudis Shorthorn Beef Simmental Susses Tarentaise Tasmanian Grey Texas Longhorn Welsh Black White
BL BM BN BO BR BS BT BU BWF BX CA CB	Brindle Beef Master Brangus Braford Brahman Brown Swiss Brahmanstein Braunvieh Black, White Faced Beef Not Specified Chianina Charbray Charolais	HH HO HP HS HY JE KB KE LM LR LU MA ME	Horned Hereford Holstein Hereford-Polled Scotch Highland Hybrid (Alberta) Jersey Kobe (Wagyu) Kerry Limousin Lincoln Red Luing Maine Anjou Maremmana	SA SB SD SG SH SM SX TA TG TL WB WH	Salers Simbrah Shorthorn Dairy Santa Gertrudis Shorthorn Beef Simmental Susses Tarentaise Tasmanian Grey Texas Longhorn Welsh Black White White Park
BL BM BN BO BR BS BT BU BWF BX CA CB CH	Brindle Beef Master Brangus Braford Brahman Brown Swiss Brahmanstein Braunvieh Black, White Faced Beef Not Specified Chianina Charbray Charolais Canadienne	HH HO HP HS HY JE KB KE LM LR LU MA ME MG	Horned Hereford Holstein Hereford-Polled Scotch Highland Hybrid (Alberta) Jersey Kobe (Wagyu) Kerry Limousin Lincoln Red Luing Maine Anjou Maremmana Murray Gray	SA SB SD SG SH SM TA TG TL WB WH WP WR	Salers Simbrah Shorthorn Dairy Santa Gertrudis Shorthorn Beef Simmental Susses Tarentaise Tasmanian Grey Texas Longhorn Welsh Black White White Park West Flemish Red
BL BM BN BO BR BS BT BU BWF BX CA CB CH CN	Brindle Beef Master Brangus Braford Brahman Brown Swiss Brahmanstein Braunvieh Black, White Faced Beef Not Specified Chianina Charbray Charolais Canadienne Corriente	HH HO HP HS HY JE KB KE LM LR LU MA ME MG MK	Horned Hereford Holstein Hereford-Polled Scotch Highland Hybrid (Alberta) Jersey Kobe (Wagyu) Kerry Limousin Lincoln Red Luing Maine Anjou Maremmana Murray Gray Marky	SA SB SD SG SH SM SX TA TG TL WB WH WP WR XX	Salers Simbrah Shorthorn Dairy Santa Gertrudis Shorthorn Beef Simmental Susses Tarentaise Tasmanian Grey Texas Longhorn Welsh Black White White Park West Flemish Red Crossbreds/Mixed



STATE CODE NUMBERS (USDA)

11 Maine 56 South Carolina

12 New Hampshire 57 Georgia 13 Vermont 58 Florida

14 Massachusetts 59 Dominican Republic

15 Rhode Island 61 Kentucky 16 Connecticut 63 Tennessee 21 New York 64 Alabama 22 New Jersey 65 Mississippi 23 Pennsylvania 71 Arkansas 31 Ohio 72 Louisiana 32 Indiana 73 Oklahoma 74 Texas 33 Illinois

34 Michigan 81 Montana
35 Wisconsin 82 Idaho
41 Minnesota 83 Wyoming
42 Iowa 84 Colorado
43 Missouri 85 New Mexico

45 North Dakota86 Arizona46 South Dakota87 Utah47 Nebraska88 Nevada48 Kansas91 Washington50 Delaware92 Oregon

51 Maryland 93 California 52 Virginia 94 Puerto Rico 54 West Virginia 95 Hawaii

55 North Carolina 96 Alaska

Iowa Premises Identification Program

- The Animal Disease Traceability Program is a national animal health program that is being developed by the USDA and state animal health agencies, in cooperation with industry. This program includes premises identification.
- Premises Identification involves assigning a unique number to premises involved in animal agriculture. Allied agricultural operations and non-producer participants can also be assigned Premises Identification Numbers.
- The Premises Identification will involve recording information such as addresses, name of contacts, the type of
 premises, and a contact phone number. This information will be maintained by IDALS and key pieces will be
 shared with the USDA to be available for animal disease tracing purposes.
- At present time, obtaining a premises identification number is completely voluntary. Premises Identification is done at no cost to the producer.

What constitutes a Premise?

- A premises is any location involved in livestock commerce or the movement of animals or poultry
- Any geographically unique location in which agricultural animals are raised, held, or boarded
- Two premises within a quarter mile of each other will be covered by a single ID number

How to register premises: Complete Premises Application Form

What is needed for Premises Registration?

- 911 street address
- Contact name
- Phone number
- Species
- Registering your premise is done at no cost to the producer

Once the form is returned, we will enter the information into the database

Premises registration is a voluntary program in Iowa; we do not have our own state premises identification number database. We use the USDA Standard Premises Identification System (SPIS).

The option for obtaining a premise ID in Iowa, which is voluntary, is to complete an application for a federal premises ID number and submit your request to our Department. If you do not want to participate in the federal premises registration program, a premises ID cannot be provided.

Purpose of having a premises ID: Is to create a database that will allow a rapid traceback in the event of a disease concern.

There are times when premise ids are required from various entities that are not part of the State Government.

A few examples would be:

- If you participate in Pork Quality Assurance (PQA) one of the requirements are to have a premises id.
- Some Exhibition
- Some Meat and Meat Product Merchant Wholesalers
- Interstate or Intrastate Movements

Please contact Dr. Jeff Kaisand, Iowa State Veterinarian or Dee Clausen, Program Coordinator if you have questions at (515) 281-8236.

Iowa Department of Agriculture and Land Stewardship Wallace State Office Building 502 E 9th St. Des Moines, Iowa 50319

For IDALS Use Onl	у		
Date received and	by:	Date:	By:
Premises ID No:			

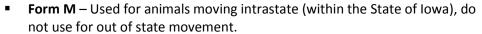
	Business/F	arm Account Information	on		
Business/Farm Name:					
Primary Contact:					
(Landlord)	Last	First	М.І.		
Secondary Contact: (Lessee, if applicable)	Last	First	M.I.		
Business/Farm Mailing Address:					
	911 Street Address				
	City	State	Zip Code	County	
For contact numbers check box for p	referred method of con		,	,	
Business Phone:	P 🗆	_ Fax Number:			Р 🗆
Cell Phone:	P 🗆	E-mail Address:			Р 🔲
Home Phone:	P 🗆	Other (describe):			Р 🗆
Signature eSignature Required			Date:		
Business Type(Check one)					
☐ Individual ☐ Partnership	☐ Incorporated	☐ Non-Profit Organization	ı 🗌 LLC 🔲 LLP	1	
Operation Type (Check all tha	t apply)				
☐ Producer Unit/Farm ☐ E	xhibition, Zoo	☐ Market/Collection Point	☐ Port of Entry		
☐ Tagging site ☐ V	eterinary Clinic	Non-producer Participant	Quarantine Fac	ility	
☐ Slaughter Plant ☐ R	tendering [Laboratory/Research	☐ Semen Collecti	on/Embryo T	ransfer
	Pre	mises Information			
Premises Address: Check] if same address a	as above, OR list different a	daress below		
City Sta	ate	Zip	County		
Premises Name/Description:			(ex. "home		
	Duamiasa T			place" or "feed	yard")
	Premises i	ype (Check all that appl	y)	place" or "feed	yard")
☐ Producer Unit/Farm ☐ E		ype (Check all that appl	··	place" or "feed	yard")
	xhibition, Zoo	Market/Collection Point	☐ Port of Entry		yard")
Tagging site	xhibition, Zoo	Market/Collection Point Non-producer Participant	☐ Port of Entry ☐ Quarantine Fac	ility	
☐ Tagging site ☐ V ☐ Slaughter Plant ☐ R	xhibition, Zoo [/eterinary Clinic [dendering [☐ Market/Collection Point☐ Non-producer Participant☐ Laboratory/Research	☐ Port of Entry	ility	
☐ Tagging site ☐ V☐ Slaughter Plant ☐ R☐ Speci	xhibition, Zoo	Market/Collection Point Non-producer Participant Laboratory/Research Check all that apply) Dairy Feedlot	Port of Entry Quarantine Fac Semen Collecti	ility	
Tagging site V Slaughter Plant R Speci	xhibition, Zoo [eterinary Clinic Lendering Les at Premises (Cow/Calf Boar Stud	Market/Collection Point Non-producer Participant Laboratory/Research Check all that apply) Dairy Feedlot Farrow Farrow/Finis	Port of Entry Quarantine Fac Semen Collecti Seedstock Finish	iility on/Embryo T Nursery	ransfer Seedstoo
Tagging site V Slaughter Plant R Speci Bison and/or Cattle: Swine: E Poultry: Chickens	xhibition, Zoo [eterinary Clinic Lendering Les at Premises (Cow/Calf Boar Stud Ducks Geese	Market/Collection Point Non-producer Participant Laboratory/Research Check all that apply) Dairy Feedlot Farrow Farrow/Finis Guineas Phe	Port of Entry Quarantine Fac Semen Collecti	iility on/Embryo T	ransfer
Tagging site V Slaughter Plant R Speci Bison and/or Cattle: Swine: E Poultry: Chickens Goats: Dairy	xhibition, Zoo /eterinary Clinic dendering es at Premises (Clow/Calf Boar Stud Ducks Geese Meat	Market/Collection Point Non-producer Participant Laboratory/Research Check all that apply) Dairy Feedlot Farrow Farrow/Finis Guineas Phe	Port of Entry Quarantine Face Semen Collecti Seedstock h Finish easants Quail	iility on/Embryo T Nursery	ransfer Seedstoo
Tagging site V Slaughter Plant R Speci Bison and/or Cattle: Swine: E Poultry: Chickens Goats: Dairy Cervids: Elk	xhibition, Zoo [eterinary Clinic Lendering Les at Premises (Cow/Calf Boar Stud Ducks Geese	Market/Collection Point Non-producer Participant Laboratory/Research Check all that apply) Dairy Feedlot Farrow Farrow/Finis Guineas Phe	Port of Entry Quarantine Face Semen Collecti Seedstock h Finish easants Quail	iility on/Embryo T Nursery	ransfer Seedstoo
Tagging site	xhibition, Zoo Zeterinary Clinic Zendering Zendering Zes at Premises (Cow/Calf Boar Stud Ducks Meat Whitetail Deer	Market/Collection Point Non-producer Participant Laboratory/Research Check all that apply) Dairy Feedlot Farrow Farrow/Finis Guineas Phe	Port of Entry Quarantine Face Semen Collecti Seedstock h Finish easants Quail	iility on/Embryo T Nursery	ransfer Seedstoo
Tagging site	xhibition, Zoo Zeterinary Clinic Zendering Zendering Zes at Premises (Cow/Calf Boar Stud Ducks Meat Whitetail Deer Llamas	Market/Collection Point Non-producer Participant Laboratory/Research Check all that apply) Dairy Feedlot Farrow Farrow/Finis Guineas Phe	Port of Entry Quarantine Face Semen Collecti Seedstock h Finish easants Quail	iility on/Embryo T Nursery	ransfer Seedstoo
Tagging site	xhibition, Zoo Zeterinary Clinic Zendering Es at Premises (Co) Cow/Calf Boar Stud Ducks Meat Whitetail Deer Llamas Ostrich	Market/Collection Point Non-producer Participant Laboratory/Research Check all that apply) Dairy Feedlot Farrow Farrow/Finis Guineas Phe Other (list): Other (list	Port of Entry Quarantine Face Semen Collecti Seedstock h Finish easants Quail	iility on/Embryo T Nursery	ransfer Seedstoo
Tagging site	xhibition, Zoo Zeterinary Clinic Zendering Es at Premises (Co) Cow/Calf Boar Stud Ducks Meat Whitetail Deer Llamas Ostrich	Market/Collection Point Non-producer Participant Laboratory/Research Check all that apply) Dairy Feedlot Farrow Farrow/Finis Guineas Phe	Port of Entry Quarantine Face Semen Collecti Seedstock h Finish easants Quail	iility on/Embryo T Nursery	ransfer Seedstoo
Tagging site	xhibition, Zoo Zeterinary Clinic Zendering Es at Premises (Co) Cow/Calf Boar Stud Ducks Meat Whitetail Deer Llamas Ostrich	Market/Collection Point Non-producer Participant Laboratory/Research Check all that apply) Dairy Feedlot Farrow Farrow/Finis Guineas Phe Other (list): Other (list)	Port of Entry Quarantine Face Semen Collecti Seedstock h Finish easants Quail	iility on/Embryo T Nursery	ransfer Seedstoo
Tagging site	xhibition, Zoo [eterinary Clinic Lendering Lenderi	Market/Collection Point Non-producer Participant Laboratory/Research Check all that apply) Dairy Feedlot Farrow Farrow/Finis Guineas Phe Other (list): Other (list)	Port of Entry Quarantine Face Semen Collecti Seedstock h Finish easants Quail	cility on/Embryo T Nursery Turkeys	ransfer Seedstoo



IOWA DEPARTMENT OF AGRICULTURE AND LAND STEWARDSHIP

Tips on Filling out Health Papers

- In lowa you need to be an accredited veterinarian before you can issue health certificates. Use the accredited number issued to you by USDA APHIS when filling out papers.
- Find out the types of health papers the State has and how to use them.
- Iowa has:





- Form DC Used for dogs and cats.
- When you fill out a health paper for movement to a new premises find out where the animals are going, and then call the State of destination for the rules for that particular species.
 - A. Ask if you need a permit number.
 - B. Ask if any statements, other than the Certification by Inspecting Veterinarian, need to be on the health paper.
 - C. Ask what tests, if any, are to be done prior to shipment.
- You have to inspect the animals, don't bypass this step!!
- Make sure you write down the correct animal ID information on the health paper. Include all forms of ID (tattoos, brands, metal tags, ear tags, etc.)
- Make sure you write down the results, dates, and laboratories used for any tests.
- Fill out the rest of the paper as necessary. Sometimes your staff will fill in the paper, remember you are responsible for the paper so you need to be the last to review it.
- Don't forget to date it (inspection date and date you signed), and sign it!

Special Notes for Shows, Exhibitions, and Fairs

- Call and get the official heath rules for each show, exhibition, or fair as some rules will vary.
- If there is a chance that the animal will be sold to a new owner then put each animal on an individual health paper. Make a photocopy of the paper for your records and send the whole paper (all copies) with the owner.

IDALS Request for Veterinary Supplies Order Form:

http://www.iowaagriculture.gov/animalIndustry/pdf/forms/RequestforSuppliesForm101614.pdf

2019 State Animal Health Officials Contact Information

https://iowaagriculture.gov/sites/default/files/animal-industry/pdf/SAHO2019.pdf

http://www.interstatelivestock.com/

https://www.globalvetlink.com/

Form O – Used for animals moving intrastate or out of state, when in doubt use this form

COUNTY A	JW Fari [23 Happy] ng town Adam NO 00 JWBZ	Th Z	23456	STRI CITY COU	EET 18	00 J	Smith Swith Ckin OVR	ave.	ZIP 0023	NAME STREE CITY PREMI	SE ID NO.	F PUBLIC SALE ST RESPONSELT FOR AND	DATE ZIP	co
SPECIES	Namber in 2		AREA	STATU	JS .			HERD STAT	US		SOVEMENT RE		MUNICIPAL SON	EOF DESTINATION AND
Cattle Swins	Shipment L	- 1	Stubelesia Free	To No.	berculess		Brutefools Cartifool	According	Aujeszky's (PRV) Gustřání	INSPE	CTION		PERMIT	MA A 140
Horses	X Beading	- 17	Class A	^	Recipo	ooity	or Validation		From Sumber		- / 1	7-1-76	NUMBER	m01480
Sheep	Feeding		Class 8		Modifie						Vaccinated	For		
Other:	Soughe		Doss C.		Access	Rec		DATE OF LAST HE	ED TEST	Product				
	Enblin		1					1		Date				
DENTIFICATIO	WITAG		RIPTION OF NIMALS			A	10 m	NU Date	(demail) Date	Brucelios	s Test	Brucaliosis Vaccination	Other T Date	ests
REGISTRY NU	MBER		THE CO			E	S W X	OBS Oste Test Res.	its BAPA	Card	Other	Date or	Lab Résults	
2 40 41	1234 1 1300#	Unc.	Lad 10	4.1		5	FHE		25 OV.	Car	Cale	RVI	Pyeauto	
		p 10-p	1			2.4						A		
ZAAB	0014 2 1500+	* Blas	k Ang	us (ow	4	FAC	3				RV2		
ZAAB	0014 2 /500 [‡]	* B/as	ik Ang	us (ow	4	FAC	9				RV2		
ZAAB	0014 2 1500+	* Blas	K Ang	us (ow	4	FAC	Ŷ.				RV2		
ZAAB	0014 2 /500	* Blas	ik Ang	us (ow	4	FAC	9				RV2		
ZAAB	001Y 2 /500# 3 4	# Blas	ik Ang	us (ow	4	FAC					RV2		
ZAAB	001Y 2 /500+ 3 4 5 6	# Blus	ik Angs	NS (ow	4	FAC			- (1	m D	RV2		
ZAAB	001Y 2 /500 [‡] 3 4 5 6 7	# Blus	ik Ang	us (ow	4	FAC	9	(a	mpl	RV2		
2448	001Y 2 /500f 3 4 5 6 7	# Blue	ik Ang	us (ow	4	FAC	9	(a	mpl	RV2		
2.4A.B.	001Y 2 /500 [‡] 3 4 5 6 7 8 9	* Blas	ik Ang	ws (ow	4	FAC	9	(a	mp/	RV2		
2448	001Y 2 /500f 3 4 5 6 7 8 9 10	t Blas	ik Ang	M.S. (ow	4	FAC	9	(a	mp/	Rv2		
2448	001Y 2 /500 [†] 3 4 5 6 7 8 9 10	t Blas	ik Ang	M.S. (ow	4	FAC	9		a	mp/	RV2		
2.44.8	001Y 2 /500 [†] 3 4 5 6 7 8 9 10 11	t Blas	ik Ang	W.S. (OW	4	FAC			a	mp/	RV2		
2448	001Y 2 /500 f 3 4 5 6 7 8 9 10 11 12 13	t Blas	ik Ang	w.s. (OW	4	FAC	9		a	mpl	RV2		
WNERAGEN	001Y 2 /500f 3 4 5 6 7 8 9 10 11 12 13 14 15	* Blus	ik Ang	ERTIFI	CATION	OF ISS	ING VE	TERINARIAN:	I Ves Aumilia	a Cu	mp!	e		to /D=/D=/
	001Y 2 /500f 3 4 5 6 7 8 9 10 11 12 13 14 15	* Blus	EE: CI	ERTIFICATION OF THE PROPERTY O	CATION on account of the categories of the categ	OF ISS	EING VE votarinaria		W Accredited V			e S boly	to be	ns 10-10-1

lowa Health Requirements Governing the Admission Of Animals: http://www.iowaagriculture.gov/animalIndustry/animalAdmissionRegs.asp

Form DC-Certificate of Veterinary Inspection for Cats/Dogs

Owner or (100000000000000000000000000000000000000		Doc	Consignee			loe	
Address _	123		ine f		Address	- Annahada	eline		- (45.h
City	Anyton	in,	IA	98765	City/	7 ny who	ere,	NE O	0001
Telephone	Number	555	- 678	-0000	Telephone I			- 234-0	000
DESCRIPTION	BREED / COLOR	SEX	AGE / DOB	TATTOO MICROCHIP NUMBER	RABIES TAG NUMBER	RABIES VAC	1 year 3 year	MANUFACTURER	SERIAL NUMBER
Rover	Black Lab Black	m	4-1-12	NA	087654	ImRab 3	9-1-15	merial	98765
	,								
EMARKS:	t the animals listed	above has	ve been exami	ned by me and foun	d to be free from cont	agious and infec	tious diseases	to the best of my	-

Form M-Intrastate Certificate of Veterinary Inspection

CERTIFICATE OF INSPECTION INTRASTATE SHIPMENT ONLY IOWA DEPARTMENT OF AGRICULTURE AND LAND STEWARDSHIP **BUREAU OF ANIMAL INDUSTRY** Des Moines, Iowa 50319 GRICULTURE **Bill Northey** Secretary of Agriculture 1313 Mocking bird Lane Desmoines County Address Market **Testing Information** Cattle Other Official Ear Tag S Swine Lab Tattoo M Other G E Date Description BAPA Card E X Reg. Ear Notch Vacc Date or Tattoo Date or Breed Results 6 m Cattle sold on private test to be held apart from other breeding cattle until laboratory confimation is received. Swine to be held separate and apart under quarantine for 30

days after movement.		
Herd of origin status:	Date of last herd status test: 123 Hampshire Av Prescott, IA	re. Adam.
I certify, as an accredited veterinarian, t and that they are not showing any sign (except where noted). Inspection valid v	is of infections, contagious, and/or co	mmunicable diseases
Date 11-5-16 009-0549/Form-M (Rev 7/07) WHITE - ACCOMPANY SHIPMENT	Signature of Veterinarian YELLOW-VETERINARIAN	PINK - IDALS



OWNER-SHIPPER STATEMENT (OSS)

OSS may be used for the following interstate movement.

All movements are subject to approval by the shipping and receiving states.

- · Farm of origin directly to an approved market or livestock tagging site
- Farm of origin directly to slaughter
- Dealer's premises directly to slaughter
- Other movements as approved

Street/Road Address	City		State
Destination (Livestock Market	, Tagging Site or Buying Station Nar	ne):	
Owner name:			
Owner mailing address:			
Address:	City:	State	Zip
Shipper name:			
Shipper address:			
Address:	City:	State	Zip
Species and number of each:			
Cattle Goats C	Sheep S	Swine Hor	ses
Signature:			
	OR		
Owner	Shipper		
or □ Official ID for each anim	ped directly to an approved tagg mal in the shipment as required in G – goats, SH – sheep, SW –swine, H –	n 9 CFR is recorded	below.
			

^{*}A separate listing of official animal identification numbers may be attached to this form.

Certificates of Veterinary Inspection (CVIs)

Some of the enhanced features include:

- An animal upload capability that allows an Excel spreadsheet or CSV file of animal information to be uploaded with multiple animal identifiers,
- The capability for a user to create a number of CVI templates and certificate statements and save them to an account for future use,
- Storage and access to commonly shipped individual animal or group descriptions for one click dataentry on future documents,
- Rapid addition of lab tests and vaccination information to each individual animal or a group of animals,
- Accredited veterinarians and labs can enter and process Coggins forms for multiple horses at one time,
- A quick-copy auto-fill feature that allows copying of age, breed, sex, test results, and more from one animal to all the following animals with just one click. If sequential identification numbers are being used, it can "add 1" to each subsequent line, and
- Storage of an electronic copy of an issued CVI for future reference.

WHY CREATE CERTIFICATES ELECTRONICIALLY IN VSPS?

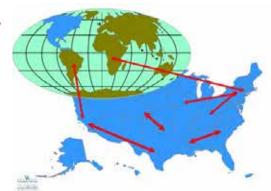
VSPS is FREE to all users (accredited veterinarians, health technicians, NVSL-approved labs and State animal health officials). There are many benefits when you create an electronic certificate of veterinary inspection:

- It saves time!
- They're much easier to read than paper forms.
- They assist State health officials in tracking livestock movements in and out of their States.
- They're easily searchable to find animal identification and to locate animal certificates.
- You can electronically store all of your documents in one place.
- It's easier to share information with State and other animal health officials.
- It's easier to share documents between practice members.

More information about the Interstate Module in VSPS can be found at: https://www.aphis.usda.gov/vs/vsps/accredited-veterinarians.pdf

Import and Export Requirements for Animals

Export - Federal Government (USDA, APHIS, Veterinary Services) has the sole responsibility for establishing minimum U.S. requirements for the export of livestock and poultry. As such, USDA, APHIS, Veterinary Service must endorse all international health certificates for these animals.



Requirements of Foreign Countries - Call the USDA, APHIS,

Veterinary Services Area Office in Des Moines for information

on specific requirements, for advice, and for help. It is very important that you fully understand a country's requirements, as knowledge of isolation and testing protocols are critical to successful export of animals, semen, and embryos.

USDA Veterinary Services does not regulate the export of pet dogs and cats, but they ...

- 1. Are willing to help, but do charge a user fee for endorsement of small animal CVI's.
- 2. Will endorse international health certificates for pet dogs and cats if required by a foreign country.
- 3. Owners or accredited veterinarians need to contact the embassy or consulate of the importing country as they are often a good source of current information on regulations concerning small animal imports.

Common Problems with International Health Certificates: They are similar to those encountered with Interstate Health Certificates:

- 1. Failure to be timely.
- 2. Timing of tests, treatments, and isolation periods must be considered to meet all regulations and to allow adequate time for paperwork to be endorsed at the Area Office for USDA, APHIS, Veterinary Services.
- 3. Improper Identification.
- 4. You MUST record all OFFICIAL identification, but it is helpful to note any additional identification.
- 5. Improper Tests Performed (e.g., EIA, and Bluetongue tests for animals to Canada).
- 6. Failure to understand and properly record certification statements (Certifications and statements must be recorded EXACTLY as written by the importing country).

Why does USDA, APHIS, Veterinary Services regulate exports?

- 1. To protect our export markets.
- 2. Political, economic, and health reasons.
- 3. To avoid political embarrassment or conflict.
- 4. To prevent the spread of disease internationally.

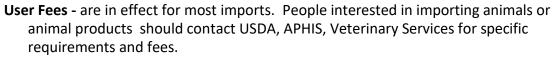
<u>Imports-</u> USDA Vet Services regulates imports so as to prevent the intro of Foreign Animal Diseases.

General Considerations:

- 1. The United States import requirements vary by the country of origin and species
- 2. Import permits and health certificates are required to enter the United States
- 3. All animals are inspected on arrival
- 4. Quarantine facilities are required and are paid at the owner's expense

Importation of some species is regulated by other Federal agencies:

- **Fish and Wildlife Services** regulate the importation of species protected by the Convention on International Trade of Endangered Species (CITES).
- Public Health Service / Center for Disease Control and Prevention Regulate the importation on nonhuman primates, dogs, and cats.



https://www.aphis.usda.gov/aphis/pet-travel/pet-travel-info-and-guidance-document/pet-travel-endorsement

Import Issues Awareness - Accredited Veterinarians need to be aware of the fact that animals entering the country can be potential carriers of foreign animal diseases. Examples of instances that have occurred: a dog with screwworm larva; ostriches and snakes with exotic ticks; psittacine birds with Exotic Newcastle Disease.

National Import Export Services/Service Center (SC) State-by-State Listing https://www.aphis.usda.gov/animal health/downloads/nies contacts/sc.pdf

APHIS Pet Travel Website

https://www.aphis.usda.gov/aphis/pet-travel



APHIS Form 7001: International Certificate of Health Examination for Small Animals https://www.aphis.usda.gov/library/forms/pdf/APHIS7001.pdf

Veterinary Export Health Certification System (VEHCS)

http://www.iowaagriculture.gov/animalIndustry/IVAH/VEHCS.pdf

APHIS IRegs-Livestock Export

https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/export/iregs-for-animal-exports/ct iregs animal exports home



How do I get a health certificate endorsed by the USDA, APHIS, Veterinary Services?

Exporters seeking to ship animals or animal products outside the United States from Illinois, Indiana, Iowa, Kentucky, Michigan, Minnesota, Ohio, or Wisconsin can use any of the six Service Center 3 offices.

There are two options for having a health certificate endorsed:

- Mail the documents to the office nearest you (See instructions towards the end of this email).
- Call and Schedule an appointment at the office nearest you.
 - Appointments are available Monday-Friday 9:00 am − 2:00 pm

	Service Center 3 Office	Locations
<u>Illinois</u>	Iowa, Minnesota, and Wisconsin	
USDA, APHIS, VS Attention: Export 3410 Hedley Road Springfield, IL 62711	USDA, APHIS, VS Attention: Export 1111 Deming Way, Ste. 100 Madison, WI 53717	国教教司 私教教教 法教教教
Telephone (217) 547-6032 Fax (217) 547-6031 Email: <u>vspsil@aphis.usda.gov</u>	Telephone (608) 662-0630 Fax (608) 662-0601 IA Email: iowaexport@aphis.usda.gov MN Email: vspmn@aphis.usda.gov	Service Center 3 serves Exporters in Illinois,
	WI Email: vspswi@aphis.usda.gov	Indiana, Iowa, Kentucky, Michigan,
<u>Michigan</u>	<u>Kentucky</u>	Minnesota, Ohio and Wisconsin
USDA, APHIS, VS Attention: Export 3001 Coolidge Road, Ste. 325 East Lansing, MI 48823	USDA, APHIS, VS Attn: Export Department 105 Corporate Drive, Suite H Frankfort, KY 40601	MINNESOTA BY Claud Minneapolis WISCONSINGreen Bey Rochester Outspan
Telephone (517) 337-4700 Fax (517) 337-4722 Email: <u>vspsmi@aphis.usda.gov</u>	Telephone: (502) 848-2043 Fax (502) 848-2048 Email: vspsky@aphis.usda.gov	MICHIGAN Monor Milwelukee Grand Rapids Rockford Detroit
<u>Ohio</u>	Indiana (LIMITED SERVICE - BY APPOINTMENT	IO W.A. Cedar Rapids Chicago Ann Arbor Toledo Clevela ha Fort Wayne
USDA, APHIS, VS Attention: Export 12927 Stonecreek Drive Pickerington, OH 43147	ONLY) USDA, APHIS, VS Attention: Export 5685 Lafayette Road, Suite 400 Indianapolis, IN 46254	Peoria IL NOIS Springled IN NA NA India applia Columbus Cincinnati Lawrence St Louis Lewrence Lewrence
Telephone (614) 856-4735 Fax (614) 866-1086 Email vspsoh@aphis.usda.gov	Telephone (317) 347-3100 Fax (317) 347-3311 Email: yspsin@aphis.usda.gov	Springfield Mark Twant Springfield National Forest KENTUCKY



Before making plans to travel internationally with your pet, visit our new Pet Travel website at https://www.aphis.usda.gov/aphis/pettravel for current information on what's required.



Additional Information for Animal Certificates

Include the following items in your mailing or bring to one of our offices:

For some countries if you are traveling with more than one pet each must have its own documentation, as well as additional payment.

- The health certificate
- Rabies vaccination certificate
- Payment:
 - Check or money order made payable to the USDA
 - We accept all major credit/debit cards
 - o We only accept credit/debit cards, checks, and money orders- NO CASH
 - o If no testing is required, the cost is \$38.00 per certificate
 - o If testing is required, the cost is \$121 for the first certificate and \$7 for each additional certificate in the same shipment.
 - We do not charge a user fee for service animals. Emotional support animals require documentation from an authority declaring the animal as being a service animal.

Mailing Instructions

NOTES:

- Mailed packages take 1-3 business days to endorse.
- Overnight the package to an Area Office using a service provider that uses a tracking number feature such as UPS, FedEx or USPS Priority Express. This will allow you to track the progress of your package and will decrease the chances of it being lost in the mail system.
- Include a return label so that we can return your package. Please use a service provider that uses a tracking number feature such as UPS, FedEx or USPS Priority Express. (Record the tracking number.)
 - o We cannot accept a FedEx or UPS label with your credit card number listed as the payment method.
 - o If a return label is not included we will return your package using USPS First Class

According to the Paperwork Reduction Action information unless it displays a valid OMB co. The time required to complete this informatic searching existing data sources, gathering and	ntrol number. The valid OMB con on collection is estimated to aver	age .25 h c	rs for thi	is information collecti response, including t	on are 0579-0036 and 0579-0333. he time for reviewing instructions.	USDA r egulation sh all be transportation in commerce	nate, or additional kinds or classes del ivered to any i ntermediate , unless accompanied by a heal the arian (7 U.S.C. 21.43,9; CFR, Sub-	handler or car rier for certificate executed and	OMB APPROVED 0579-0036 0579-0333
UNITED STATES DEPARTMEN ANIMAL AND PLANT HEALTH IN UNITED STATES INTERSTATE	NSPECTION SERVICE	a false staten uses s to be	e, fictition nent on such dos false, fic	Anyone who makes us, or fraudulent this document, or cument knowing it titious, or	1. TYPE OF ANIMAL SHIP Dog Cat Nonhuman Primate		2. CERTIF	CATE NUMBER - OFFI	CIAL USE ONLY
CERTIFICATE OF HEALT FOR SMALL AN	T. S. STRONG PROPERTY AND A STRONG PARTY.	fine of	not mo	y be subject to a re than \$10,000 or of not more than \$ (18 U.S.C. 4000)	3. TOTAL NUMBER OF A	2000 D.F.	4. PAGE		
5. NAME, ADDRESS, AND TELEPHO USDA License/or Registration Number		CONSIGN	IOR)	West and Wes	- NAME ADDRESS, AND	TELEPHONE NUMBER	OF RECIPIENT AT DESTINA	TION (CONSIGNEE)	
	ANIMAL IDENTIFICATION					S. PERTINENT VACCINAT	TION, TREATMENT, AND TE	STING HISTORY	
NAME, AND/OR TATTOO NUMBER OR OTHER IDENTIFICATION	BREED - COMMON OR SCIENTIFIC NAME	AGE	SEX	COLOR OR DISTINCTIVE MARKS OR MICROCHIP	RABIES V/	ACCINATION 3 YEARS		HER VACCINATIONS, , AND/OR TESTS AND I	RESULTS
-(1)				monorm;	Vaccination Date	Product	Date	Product Type and/or F	Results
(2)									
(3)									
(4)									
					- 1 to				
(5)	The state of the s							1000	
(6)				-					
9. REMARKS OR ADDITIONAL CERT	IFICATION STATEMENTS (WHEN R	EQUIR	ED)	VETERINARY CERTIFICATI information provided in box ("X" applicable statements)	8 is true and accurate to th	nals described in box 7 have be best of my knowledge, and t	een examined by me this hat the following findings	s date, that the have been made
					I have verified the pres	ence of the microchip, if a mic	crochip is listed in box 7.		
					I certify that the animal appear to be free of any infection animal or other animals or wo	tious or contagious diseases:	ontinuation sheet(s), if applicable and to the best of my knowledge	s, have been inspected by , exposure thereto, which	me on this date and would endanger the
					To my knowledge, the for rabies and has/have not be	animal(s) described above an	d on continuation sheet(s) if app	licable, originated from an	area not quarantined
ENDORSEMENT FOR INTERNATION. PRINTED NAME OF USDA VETERINA		A Line	*		NAME, ADDRESS, AND TI		SSUING VETERINARIAN	LICENSE NUMBER	AND STATE
								Accredited Yes	ete below
Olay Filor of Laboratory				The state of the s	NOTE: International shipment	s may require certification by	an accredited veterinarian.	NATIONAL ACCRET	
SIGNATURE OF USDA VETERINARIA	N Apply USDA Seal or	Stamp he	re	DATE	SIGNATURE OF ISSUING	VETERINARIAN			DATE
APHIS Form 7001 (NOV 2010)		This o	ertifica	ate is valid for 30) days after issuance			-6.7	

^{**} Not accepted by North Dakota for interstate movement of small animals

OMB control numbers t	work Reduction Act of 1995, a or these information collection viewing instructions, searchin	s are 0579 pedisting	9-0020, 0101, 0156 data sources, gath	i, 0278, and 3 ering and ma	OCCC. Intainin	The fir	nes requi lata need:	red to o	complete the d completing	se info and n	omation of extending to	collection the coll	ons is est ection of	mated to eformation	average ,5 ! n.	to 1 hour per resp	onse,		OMB Approved 579-0020, 0101, 0156 0278, and XXXX	
	UNITED STATES DEPART ANIMAL AND PLANT HEAL VETERINAR	MENT OF THINSPE	CTION SERVICE	.C. 112]; wh	ile you	are n										requested is pr		ER	3. PAGE NUMBER	
(This document do	ITED STATES ORIGIN es not replace the Certificate	HEAL'	TH CERTIFICA ion of Export Anima	de, VS Form	17-27)		· Checo	TO C. ESPO	, SUE .							F1111			1 of 1	
PROPERTY AND ADDRESS OF THE PARTY AND ADDRESS	SUMAS, WASHII			State) 6. STA			123 (COU	INTRY	RD.	ESS (Mai	ling Ad	dressj		8. CONSI	GNOR'S CITY (0 VVILLE	an revee			
	10. NO. DOSES OF SEME		11. TRANSPO				UTAH	CONSIGNOR'S STATE TAH CONSIGNEE'S NAME AND STREET ADDRESS (Mailing Address) DESTINATION COUNTRY										8	ZIP CODE 4000 NTER CODE	
15. SPECIES ("X" one	use VS Form 17-6 for Poultr	d	2 - Truc	sk ∐4-0	Doean				ETMAN S						and the same of th				A	
■ 01 BOVINE		03 OVI	NE ☐04 CA					E TUE	BERCULIN NG	BRUCELLOSIS BLOOD SAMPLE COLLECTED						NEGATIV	THER TESTS			
DIS OTHER (S)		3,100				T	☐ 48 H	RS I	72 HRS						Di	SEASE	DISEASE		DISEASE	
Wanter State and manufacture	d below - use VS Form 17-14		140	DOIFIED ACC	DENT	ED A	CA (TD)	CHARGE I	-		0			CELLOS	SUS TO	PE TEST	TYPE TE	20 T	TYPE TEST	
17. FARM ORIGIN Owner's Name (Last N	ime, Two Initials, or Business	TIFICA C, and C	TION				FREE				EA.	1	PE IESI	TYPE IE	51	(TPE IES)				
(FIPS Code on reverse	RESTRICTED FLANT	ode.	ID NUMBER OR DE A	SCRIPTION	8	SEX	BREED	¥ E	DATE	4 8	DATE	VAC	1/25 J	550 K	1/100 L	DATE		NTE N	DATE 0	
	OMAS, S.J.	IY	M	AN		3/11/16	1	2/26/16		N										
	123 COUNTRY RD. 01793453 8M									1	3/33756		N							
IUWNV	TOWNVILLE, UT 84000 01793454							1 AN 3/28/26		6 V SISSIN N										
																	1.			
		=																		
						-														
	Y IF USDA VETERINARY SEAL APPEARS HERE This is to certify that the animals identifies therefor, the premises of origin are not unhave been made for the animals to be he exposure to other animals on route, exposure to other animals on route.							ected b e quan ting ve	antine becau whicle that he	date asse of as been	and found animal di n cleaned	i to be seese; and di	ree from the anima sinfected	evidence is were a since last	of communi ill negative to t used for ity	o the tests shown estock and for me	on the date	s indic	ated. Arrangements	
23. Signature of Endo	rsing Federal Veterinarian	19, DAT	E ENDORSED 20	IDER, J	JARE	D I	erinari /.	AN (La	est Name, Fil	st Nar	me, Middi	e Initial	- please	print) 2	1. STATUS	2 Federal 3 Accredi	22. TO (O ed se	TAL N entitled ement (UMBERS OF ANIMALS for export or donated holide numbers from ad VS Forms 17-1404)	
	A SEA SEA CONTINUE AND SAME						- A T. P. T. T.												3	
VS Form 17-140 NOV 2014										_			_							

VS Form17-140 United States Origin Health Certificate (March 1998 Version)

Livestock traveling internationally must be accompanied by an o

APHIS representative
or an accredited veterinarian at the point of origin. VS Form 17-140 is used for international export of livestock; however,
this form is being phased out of use and is being replaced with more user-friendly documents by both APHIS and importing
countries. Most foreign countries now requir

the VS Form

17-140. This form may also be used for the export of embryos and semen to foreign countries, unless the country of destination requir

A pre-movement authorization, known as a Permit for Entry or Import Permit, may also be required by the destination country before animals can enter the country. Regulations on international movement of livestock can be found on the APHIS IREGS for Animal Exports website at http://www.aphis.usda.gov/regulations/vs/iregs/animals/. However

equirements by contacting your NIES Service Center.

This document is intended to give general guidance on how to complete VS Form 17-140. Recognize that these are not APHIS and

VS forms for international movement, contact your NIES Service Center. A properly completed form is critical to ensure proper compliance.

- 1. CONSIGNOR'S NAME: , which may or may not be the owner. If the consignor is a business rather than an individual, list the full business name instead.
- 2. CERTIFICATE NO.:

VS Forms 17-140A (continuation sheets), if used.

- 3. PAGE NO.: Show total number of pages in the shipment on each sheet (for example, a shipment that uses one VS Form 17-140 and two VS Forms 17-140A would be numbered "Page 1 of 3", "Page 2 of 3", and "Page 3 of 3", respectively).
- 4. DATE ISSUED: Indicate the date the veterinary inspection was performed and the animals were determined to be healthy. The form may not be signed and given to the consignor unless all testing results are negative and all other requirements have been completed.
- 5. U.S. PORT OF EMBARKATION (City and State): Record the location where the animals are loaded on the aircraft or ocean vessel for departure. If the animals are traveling to Canada or Mexico by land vehicle, list the U.S. Port of Entry across from the Canadian or Mexican Port of Entry.
- 6. STATE CODE: Provide the State of the port of embarkation using the two-letter United States Postal Service (USPS) State code.
- 7. CONSIGNOR'S STREET ADDRESS (Mailing Address): Enter the mailing address of the consignor.
- 8. CONSIGNOR'S CITY: Specify the city of the consignor's mailing address.
- 9. SEMEN: Check if semen is being exported. Be certain to list the species in Box 15.
- 10. NO. DOSES OF SEMEN: Record the number of semen doses being exported. If Box 9 was not checked "YES", leave this blank.
- 11. TRANSPORTATION CLASS: Enter the number in the box for the type of transportation to be used from the point of embarkation loading for export. For example, if a horse is being transported in a truck to an airport so the animal can be exported on an airplane, the Transportation Class is "AIR".
- 12. CONSIGNOR'S STATE: Provide the State of the consignor's mailing address.

VS Form 17-140 United States Origin Health Certificate (March 1998 Version) (cont'd)

- 13. STATE CODE: Enter the two-letter United States Postal Service (USPS) State code from the State of the consignor's mailing address.
- 14. ZIP CODE: Enter the ZIP code of the consignor's mailing address.
- 15. SPECIES:
- 16. CONSIGNEE'S NAME AND STREET ADDRESS: Provide the name and mailing address of the consignee.

DESTINATION COUNTRY: Record the destination country name.

ENTER CODE: Enter the two-letter destination country code if known, otherwise leave blank.

- 17. FARM ORIGIN: Provide the name, street address, city, two-letter USPS State code, and ZIP code of the premises where the animals were processed for the export, also called the origin premises. This origin premises may or may not be the owner or consignor.
- 18. INDIVIDUAL IDENTIFICATION: (If more lines are needed—use VS Form 17-140A)
 - A. ID NO. OR DESCRIPTION: ID requirements vary by species. Record all forms of ID, including permanent brands,

Also

list the reader device since not all readers read all microchips.

- B. AGE: Indicate the age and unit of measure of each animal in years (Y), months (M), weeks (W), or days (D). For young animals, the age in months, weeks, and days are commonly used as the unit of measure. For older animals, the age in years would commonly be recorded. For example, a 10-year-old horse would be listed as 10Y, or a 4-week-old horse could be listed as 1M or 4W.
- C. SEX: Indicate the sex of the animal (M—Male, F—Female, NM—Neutered Male, NF—Neutered Female).
- D. BREED: Use the breed codes located on the back of the form.
- E. MODIFIED ACCREDITED AREA (TB): Check the box if the animals originate from a *(Check the status through the SAHO'*Accredited Area.
- F. DATE: Provide the date the TB test was completed (observation/palpation date). Make sure to also mark in the area above it the appropriate box indicating whether the test was read at 48 HRS or 72 HRS.
- G. CERTIFIED BRUCELLOSIS FREE AREA: Check the box if the an

 Area. (Check the status through the SAHO'

 sis Free
- H. DATE: Record the date the blood sample was drawn from the animal.
- I. VAC:

For the next titers (1/25, 1/50, 1/100), show the animal was negative by including an "N" in the box that corresponds to the highest negative titer required.

J. 1/25:

K. 1/50:

L. 1/100:

NEGATIVE RESULTS OF OTHER TESTS:

DISEASE: Provide the name of the disease being screened; use the disease name that is mentioned in the destination requirements.

TYPE TEST: Indicate the name and type of test used to screen for the disease; use the test type that is mentioned in the destination requirements. If the destination did not specify the test type, use the test type the laboratory performed (AGID, PCR, ELISA, etc.)

M. DATE: Enter the date the sample was collected from the animal for the above test type.

N. DATE: Enter the date the sample was collected from the animal for the above test type.

O. DATE: Enter the date the sample was collected from the animal for the above test type.

VS Form 17-140 United States Origin Health Certificate (March 1998 Version) (cont'd)

19. DATE ENDORSED:

You should leave this box blank

as it will be completed by the Federal veterinarian.

20. NAME OF ISSUING VETERINARIAN:

who is issuing (signing) this form.

- 21. STATUS: Check only one box. As an accredited veterinarian, check the "Accredited" box.
- 22. TOTAL NUMBERS OF ANIMALS:

Include numbers from all attached VS Forms 17-140A.

- 23. SIGNATURE OF ENDORSING FEDERAL VETERINARIAN: Leave blank. The Federal Veterinarian will sign here. In some instances, a USDA V
- 24. NAME OF ENDORSING FEDERAL VET: Leave blank. This will be completed by the Federal veterinarian.
- 25. SIGNATURE OF ISSUING VETERINARIAN: Provide the signature of the veterinarian who is issuing this form. It must be the veterinarian whose name was printed in Box 20.

VS Form 17-140, a continuation sheet (VS Form 17-140A) can be used.

VS Form 17-140A United States Origin Health Certificate— Continuation Sheet

Complete all boxes on the continuation sheet as they were completed in the main form.

NOTE: VS Form 17-140 (Box 2) needs to be inserted in Box 2 of all continuation sheets (VS Form 17-140A). Each continuation sheet should be numbered ("Page No." in upper right corner Box 3), as well as the total number of pages. For example, if using three pages for the export, the two continuation sheets should be numbered "Page 2 of 3" and "Page 3 of 3".

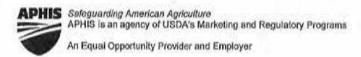


Order Taken By:	
Order Filled By:	
Order Filled Date:	

General Of	fice	For	ms
------------	------	-----	----

		General Chice I Chills												
Inited States	FORM#		QUANTITY											
Department of agriculture	VS 6-22	TUBERCULOSIS TEST RECORD - 50/PKG	300											
griculture	VS 6-22B	TUBERCULOSIS TEST RECORD CONTINUATION - 50/PKG												
nimal and	VS 1-27	INTERSTATE MOVEMENT OF REACTOR ANIMALS - 25/FORMS & ENVELOPES												
lant Health	VS 4-26	BRUCELLOSIS CALF HOOD VACCINATION RECORD (LONG) - 100/PKG												
nspection Service	VS 4-33	BRUCELLOSIS TEST RECORD - 50/PKG												
	VS 4-33A	BRUCELLOSIS TEST RECORD CONTINUATION - 50/PKG												
eterinary Services	VS 4-54	BRUCELLOSIS MARKET CATTLE TESTING PROGRAM - 100/PKG												
10 Walnut	VS 10-11	EQUINE INFECTIOUS ANEMIA LABORATORY TEST REPORT - 50/PKG												
loom 891	VO 10-11	EQUINE IN ECTIODS ANEMIA EXPONATORT TEST REPORT - 50/FRG												
es Moines, IA		Import/Export Forms												
0309	*VO 47 440	는 이 사람이 있다면 가장 이 가장 보다는 것이 이 등을 하는 사람이 있다면 하지 않는데 하지 하지 않는데 하지 하지 않는데 하지 하지 않는데 하지 하지 않는데 하지 않다면 하지 않는데 하지												
15-284-4140		U.S. ORIGIN HEALTH CERTIFICATE (LARGE ANIMAL) - 50/PKG												
15-284-4156 Fax	*VS 17-140	AU.S. ORIGIN HEALTH CERTIFICATE CONTINUATION (LARGE ANIMAL) - 50/PKG.												
	VS 7001A	U.S. ORIGIN HEALTH CERTIFICATE CONTINUATION (SMALL ANIMAL) - 50/PKG.												
	*VS 17-145	U.S. ORIGIN HEALTH CERTIFICATE (HORSES U.S. TO CANADA) - 50/PKG												
	*VS 17-6	U.S. ORIGIN HEALTH CERTIFICATE (POULTRY OR HATCHING EGGS) - 50/PKG.												
			·											
	*Denotes or	nline form												
		Seals/Shields												
	CUD CEALS	<u>Seals/Silielus</u>												
	BALL SEALS	S												
	V SHIELDS	S (VET. CLINIC MUST RETURN OLD SHIELD)												
		TOTAL AND STORY OF THE STORY OF												
		Reagents												
	TB is now	ordered directly from NVSL												
	Randy Capsel/Teresa Sigafoose													
	P: 515) 337-7181													
		Randy.T.Capsel@aphis.usda.gov												
		Teresa.M.Sigafoose@aphis.usda.gov												
		LOCAL SERVICE STRUCTURE SERVICE CONTRACTOR SERVICE SER												
	NAME OF	SALE BARN:												
		resource companies and choose												
	ACCREDIT	ED VETERINARIAN												
	i													
	CLINIC NA	ME												
	UPS ADDR	ESS												
	CITT/STAT	E/ZIP												
	PHONE													

Completed order forms can be faxed to 515-323-2286 or Emailed to vs.iowa.admin@aphis.usda.gov



Federal Relay Service (Voice/TTY/ASCII/Spanish) 1-800-877-8339

Equine Infectious Anemia

Equine Infectious Anemia Information Sheet

https://www.aphis.usda.gov/vs/nahss/equine/eia/eia info sheet.pdf

Equine Infectious Anemia Uniform Methods & Rules:

https://www.aphis.usda.gov/vs/nahss/equine/eia/eia umr jan 10 2007.pdf

9 CFR Equine Regulations:

http://www.iowaagriculture.gov/animalindustry/9CFR-EIA.pdf



U.S. DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE EQUINE INFECTIOUS ANEMIAL ABORATORYTEST (VSMemorandum 555.8)

SERIALNO. В

1.ACCESSIONNUMBER

2. DATEBLOOD DRAWN

Forms Without Adequate Descriptions Of The Horse and Complete Addresses Including Zip Codes, Counties, and Telephone

	N	Numbers Will No	ot Be Processed.	,
3. REASON FOR TESTING	LJ _{Show} LJ _{Fi}	rstTest	7. NAME AND ADDRESS OR STA	BLE/MARKET (Pleaseprint or type)
D Market DChangeofOwnersh				
GEOGRAPHIC INFORMATION SYSTEMS CGISI (ddmmwwl	5. VETERINARY LICENSE OR ACCREDITATION NO.	6. TEST TYPE		
STOTEWS Color (ddifffiww)	ONACCINEDITATION NO.	DAGID		Zip Code
		D ELISA	Tel No.	County
8.NAMEAND ADDRESSOFOWNER	(Pleaseprint ortype)		9. NAME AND ADDRESS OF VI	ETERINARIAN (Plos
	Zip Code			
TelNo.	County		Tel No.	
			ACCREDITED VET ERINARIA	
I certify the spe 10. SIGNATURE OF FEDERALLYACCREDI	cimen submitted with this Form w TED VETERINARIAN	as drawn by me fro	m the horse d	w on the adicated 12. SIGNATURE DATE
		CATION OF OWN		
	have examined this form and took	hte blest bentyof my		correct and complete.
13. SIGNATURE OF OWNER OR OWNER'S	SAGENT		PE OR PA ATURE I	15. SIGNATURE DATE
16. 17. 18				
Tube Official Tettos/Prond	19, Name of Horse		C Bre	22. 23. 24. M - Male Electronic Age or Sex F - Female
No. TaqNo.	Traine of Horse			I.D. No. DOB Sex F - Female
				N - Neuter
500	SHOW ALL SIGNIFIC	MARKIN	HORLS, BRANDS, AN	ID SCARS
A.		((((((((((((((((((((A
/=			A	
			(1)	
		77,1		
*		E	7	
$\langle \rangle$		(λ //	√
		8	4 //)
		1 1	() (A	
7		71		
	1 1 5	<i>y</i> ,	y 5///	/ () /
<	1 / / / /	6	0 11/1	1114
17.17 3	1110	4.	7 U/11	1/1/
111)~	11 11 3		3 // //	3 / []
1 11/4 2	27 15		21 53	2 2 1
80	0 20		0 2 0	- 0
	1- Co	ronet, 2 - Pastern, 3	- Fetlock, 4 - Knee, 5 - Hock	
	NAF	RRATIVE DESCR	IPTIONANDREMARKS	
25. HEAD			26. OTHER MARKS AND BRANDS	
27. LEFT FORELIMB			28. RIGHT FORELIMB	

FORLABORATORYUSEONLY

30. RIGHT HINDLIMB

31. LABORATORY NAME/CITY/STATE 34. TEST RESULTS 133. DATE REPORTEDOUT 32. DATE RECEIVED **DNegative DPositive** DAGID D ELISA 36. SIGNATURE OF TECHNICIAN 35. REMARKS

Falsification of this form or knowingly using a falsified form is a criminal offense and may result in a fine of not more than \$10,000 or imprisonment for not more than 5 years or both (U.S.C. Section 1001).

29. LEFT HINDLIMB

VS Form 10-11 Instructions

EQUINE Block 1: Accession Number

Instructions: The accession number is assigned by the laboratory.

ANEMIA Leave blank.

Block 2: Date Blood Drawn

LABORATORY **T**EST Instructions: Self-explanatory. If there are any time restraints on the test (as with exports), they are from the date that the sample is drawn rather than from the date the sample is submitted or the date the test result is reported.

Block 3: Reason for Testing

Instructions: Mark the appropriate box.

Block 4: Geographic Information System (GIS)

Instructions: Enter longitude and latitude if applicable.

Block 5: Veterinary License or Accreditation Number

Instructions: Self-explanatory

Block 6: **Test Type**

Instructions: Mark the appropriate box.

Block 7: Name and Address of Stable/Market

Instructions: Enter the name, address, and telephone number of where the horse is stabled or the auction market.

Block 8: Name and Address of Owner

Instructions: Enter the name, complete mailing address, and telephone number of the owner.

Block 9: Name and Address of Veterinarian

Instructions: Enter your name, complete mailing address, and telephone number.

Block 10: Signature of Federally Accredited Veterinarian

Instructions: Self-explanatory

Block 11: Type or Print Signature Name

Instructions: Self-explanatory

Block 12: **Signature Date**

Instructions: Self-explanatory

Certification of Owner or Owner's Agent: Block 13 through 15 Instructions: This section provides the veterinarian legal protection

when misrepresentation of a horse is suspected.

Block 13: Signature of Owner or Owner's Agent

Instructions: Self-explanatory

Block 14: Type or Print Signature Name

Instructions: Self-explanatory

Block 15: **Signature Date** Instructions: Self-explanatory

Identification Data: Block 16 through 24

Instructions: Fill out as completely as possible. This area can cause the

greatest number of problems, especially during interstate or

international movement. The description MUST match the horse

exactly; therefore, be precise when indicating the markings.

Block 16: Tube Number

Instructions: Enter tube number if applicable.

Block 17: Official Tag Number

Instructions: Enter tag number if applicable.

Block 18: Tattoo/Brand

Instructions: Enter Tattoo/Brand if applicable.

Block 19: Name of Horse

Instructions: Enter complete name of the horse.

Block 20: Color

Instructions: Enter color of the horse.

Block 21: Breed

Instructions: Enter breed of the horse.

Block 22: Electronic ID Number

Instructions: Enter electronic ID Number if applicable.

Block 23: Age or Date of Birth (DOB)

Instructions: Self-explanatory

Block 24: Sex

Instructions: To indicate the sex, use the codes listed on the form.

Narrative Description and Remarks: Block 25 through 30

Instructions: Fill out as completely and precisely as possible.

Block 25: **Head** Block 26: **Other Marks and Brands**

Block 27: Left Forelim Block 28: Right Forelimb

Block 29: Left Hindlimb Block 30: Right Hindlimb

For Laboratory Use Only: Block 31 through 35



Simply Reliable Equine Health Solutions

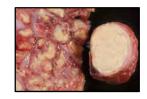
EquusLINK digital equine health certification system enables animal health practitioners to quickly and accurately create professional health documents, including Equine Infectious Anemia (EIA) or Coggins test certificates, with real-time test transmission to labs (/resource-center/online-diagnostics-lab/) as well as CVIs (/products/healthlink) and GoPass® Equine Passports (/products/digital-equine-6-month-passport/) (6-month health certificates).

Save time and money with EquusLINK Digital EIA Test Certificates (Coggins)

- Faster, more intuitive user interface
- Real-Time Lab Submission and Results
- Transfer of Ownership
- Batch sign and send certificates
- Accurate ID with Streamlined Digital Photo Upload
- MyVetLINK (/products/myvetlink/)Animal Owner Portal
- Integrated with Practice Management Software
- Mobile Capability
- Digital EIA (Coggins) Certification and Lab Submission (/products/lablink/)



Tuberculosis Program A Review for Accredited Veterinarians



As Category II accredited veterinarians, you play a critical role in detecting and preventing bovine tuberculosis. Please follow these testing guidelines.

1. Handling Tuberculin (PPD)

- Do not use tuberculin after the expiration date
- Store in the dark at 35-45F; do not allow to freeze, and avoid exposure to sunlight (proteins will denature)
- Do not store dose amounts out of original amber-colored container for longer than 12 hours; if syringes are prefilled, they should be used within a few hours
- Discard vials within 3 months of opening

2. Animal Identification (ID)

- Record the **official** identification of every animal tested (an official ear tag or registration tattoo), *as well as* any additional form of ID (e.g. bangle tags)
- Apply official ID to animal if none is present
- Breed, sex, approximate age in years of each animal tested must be recorded on the test record

3. Caudal Fold Test (CFT) Injection

- Palpate area before injecting; if lesion/thickening, pick another spot
- Use a 1 ml syringe with a 26 gauge, 3/8" long needle
- Inject 0.1 ml intra-dermally into the caudal fold; *if you don't see a bleb the injection is not intradermal*, re-inject the other caudal fold and note this in the test record
- It is recommended to use a new needle for each animal to minimize transmission, or appearance of transmission, of blood-borne infectious agents
- If you inject, you read (remember which side you injected the tuberculin)
- Do not vaccinate or treat cows on injection day, it may interfere with their response
- There is no meat or milk withdrawal time for tuberculin

4. Reading the Test

- Read the test at 72 hours post-injection \pm 6 hours
- All animals injected must be read, and the results recorded on official forms with all ID
- Visualize and palpate the injection site
- ANY change in size/swelling is a positive response (check "suspect" box on form)
- Report any responders *immediately* to the Federal or State Animal Health Officials, and provide a copy of the test records
- Explain the CFT response to your client and expect approximately a 1-3% false positive rate due of exposure to *M. avium* sub. *paratuberculosis*, *M. avium*, and other soil-borne Mycobacterium; response rates are monitored
- State/Federal regulatory staff must apply a Comparative Cervical test (CCT) on responders within 10 days of CFT injection (or wait 60 days); all cohort cattle will remain under quarantine pending results.





Mail white and green copies of all test records to the USDA APHIS VS office within 48 hours of reading the test.

USDA APHIS VS, Iowa Area Office 210 Walnut St., Rm 891 Des Moines, IA 50319

TUBERCULOSIS TESTING INFORMATION

Species	Dose & Type	Site	Read Test
Cattle	0.1ml PPD Bovis	Caudal Fold (CF)	72 hours
Horse		Not reliable	
Camelids	0.1ml PPD Bovis	Axillary Region	72 hours
Sheep, Goats	0.1ml PPD Bovis	Caudal Fold (CF)	72 hours
Swine	0.1ml PPD Bovis	Caudal Fold (CF), Vulvar Lips	48 hours
	0.1ml PPD Avian		48 hours
Poultry	0.1ml PPD Avian	Wattle	48 hours
Cats		Not reliable	
Other Ungulates	0.1ml PPD Bovis	Side of neck, eyelid, CF	72 hours
Cervidae**	0.1ml PPD Bovis	Side of Neck	72 hours

^{**} Must receive training from USDA-APHIS-VS in order to conduct testing in these species **

TUBERCULIN and ITS APPLICATION

The tuberculins provided for the bovine TB eradication program are scientifically produced by the USDA according to very stringent criteria. To maintain the potency and high quality of these diagnostic agents, also ensuring they will provide accurate testing, they must be properly stored and handled.

- 1. Tuberculin loses potency when exposed to light and/or air. Do not draw tuberculin into plastic syringes or store in dose amounts for longer than 12 hours, as proteins may interact with the container material. Once opened, tuberculin remaining in vials may lose potency due to oxidation with the air in the container, so discard partially used vials of tuberculin within 3 months. Different sized bottles of tuberculin are available to match testing needs and minimize waste. Do not use expired tuberculin or tuberculin that has frozen. Tuberculin can be ordered from NVSL in Ames at 515-337-6200.
- 2. Several drugs and hormones (particularly live vaccine and corticosteroid drugs) depress the tuberculin response. The same is true of viral infections. Avoid testing animals that are diseased, and plan to give any vaccines or treatments the day the tuberculin test is read rather than on the day of injection. There is no meat or milk withdrawal time after using tuberculin.
- 3. The Caudal Fold Test (CFT) is based on a Type IV Delayed Hypersensitivity response to tuberculin. *Tuberculin must be injected intradermally, not subcutaneously. Correct administration is verified by observance of a "bleb"*.
- 4. The timing of reading the delayed hypersensitivity response is important. Tests should be read at 72 ± 6 hours from the time of injection. If the test cannot be read within that time frame, you must wait 60 days to retest cattle, and 90 days to retest cervids.
- 5. The animals' genetic make-up affects the magnitude of the tuberculin response. Certain breeds or strains of cattle may respond differently, and tuberculin sensitivity is usually higher in females than in males.
- 6. The method of reading is also important. *Each injection site must be palpated by the injecting veterinarian; visual inspection alone is inadequate, and responders will be missed.* Differentiate other swellings, thickness, and dermal lesions from a tuberculin response; comparison with the opposite caudal fold can be helpful for small responses.
- 7. The magnitude of the response is **not** proportional to the level of infection; cattle infected with bovine tuberculosis may react very minimally, or have a very large response to the CFT.
- 8. Exposure to avian, soil-borne, and other mycobacteria can cause a "false positive" CFT response rate of 1% to 3% of all animals tested. You should expect to see some responders.
- 9. Report *any* CFT response immediately to the Federal or State office for secondary testing. A Comparative Cervical Test (CCT) must be applied to responders within 10 days of the CFT injection, or we must wait 60 days to retest cattle and 90 days to retest cervids. Alternatively, blood for a gamma test is optimally drawn within 3-7 days of the CFT injection.
- 10. Educate your clients to provide you with advance notice (3 weeks) of their plans to ship cattle to allow complete diagnostic testing, which may include CCT tests. This will reduce the pressure on you to ignore a response to avoid delaying a cattle shipment.
- 11. You must be certified to perform the Single Cervical Tuberculin (CT) test in cervidae (deer, elk, moose). This involves training in proper test procedures by a regulatory veterinarian. Upon certification, your name will be placed on a list of those approved to conduct these tests. Call your local State District Veterinarian or Federal Veterinary Medical Officer (VMO) if you have questions regarding TB training and certification.

TUBERCULOSIS TEST RECORD (VS FORM 6-22)

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid CMB control number. The valid CMB control number for this information collection is 0579-0064. The time required to complete this information displays average. Shours per response, including the time for reviewing instructions, search existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

STATE 1		coo	ALL INCOMPLETE RECORDS WILL BE RETURNED FOR COMPLETION COOPERATIVE STATE - FEDERAL TUBERCULOSIS ERADICATION PROGRAM FORM APPROVED OMB NO. 0579-0004														
[1		COO	FERA		TUBERO						UN PH	JGNA	in	F			
COUNTY	WP SEC HERE	OWNER'S	NAME -	LAST 3	FIRST	-			MI	PREVIOUS TES	ST DATE	VET	CODE	Te	OTAL	REA	SUS
ESION TEST		O OWNER'S	S COMPL	ETE ADD	PRESS					CERTIFI State Fed Expense I certify: That this test w	ner s. ense	DATE LISTED					
COUNTY 2		TOWN	SHIP OR	DISTRICT			SE	c.	FARM NO.	on the dates an That when pays agreement num	d with the re ment is clain iber below.	esuits as ned at pr no paym	entered rogram ent has	in app expense	ropriate n acc	spaces, ordance	with
REASO	N FOR TEST 4		C	OMPLETE ALL ELIGI	HEAD TEST OF T	5	SUMMARY 8			PRACTITIONER'S SIGNATURE 9					TELEPH		
1 ASEA	RETEST 6	□ v	es 🗆	NO .	NO ELIGIBLE ANIM			NEG-	0	PRACTITIONER'S NAME (Please print)						AGREE	CODE
(ERD (RE) 2	TRACING 7 REG. KILL 8	_ DI	EER	KIND (1	SUS- PECT		INJECTION -	DATE		-	10 HOUR)		
AILK 3	TRACING BEAUTORS	□ c	ATTLE	☐ BIS		THER	1	-	-		_						
SALE-SHOW 4	TRACING 9	□ (8	AUDAL F	OLD	OF TEST SNG CER (CST) (Ce	VICAL rvid)		TOR		OBSERVATION	12		DATE			HOUR	
MPORTED 5	OTHER 10	□ 8	ERVICAL T) (Bovin	7	OTHER	1,00	1	TOTAL		REACTORS TAGG	SIGNATUR			- 1		AGREE CODE	
1 10	ENTIFICATION NUMBER	AGE	BREED	SEX	RESULTS	REACTOR	1		IDENTIFIC		AGE	BREE	0 5	EX	RESI	ATS.	REACTOR
1		-	IAFI		SIZE NRS	TAG NO.	1	16	NUMB	EH	+	-	+	-	SIZE	ZBM	TAG NO
2	13	14	15	16	17	-	H	17			-	-	+	+	-	-	
3		+	_				+	18			-	-	-	1	-		
		1					1	× -				_	_	4	_		
*								19									- 7
5								20									
6								21						1			
7							1	22					T				
8							1	23					T				
9							1	24									
10	-						1	25			1						
n							1	25									
12							1	27									
12							1	28					1				-
14	~						29					1					
15		1					1	30					1	1			
1		1		1	+	I herei	by a	cknowle	edge receivir	ng a copy of this	s necord w	hich I	1				
RT - Retag NA - Natural Ac	hav				have e	1 test evi						AUTHO EXPIR	HORIZATION TO PIRES:				

COMPLETING TUBERCULOSIS TEST RECORDS

All test charts must be completed **legibly in their entirety** and will reflect the true status as determined by the testing veterinarian. If an item is not applicable, mark an "NA" or a dash indicating that it has been reviewed.

- 1. STATE: lowa, must be abbreviated "IA".
- 2. **COUNTY**: Name of county where animals are located.
- 3. **HERD OWNER'S NAME**: Legal name of owner should be entered in this block, last name first. If a ranch/dairy name, follow it with a contact person and physical location of the animals, complete address including zip code. If a livestock market, put name and address of the market in box and put the owner's name above.
- 4. **REASON FOR TEST**: Place an "X" in the appropriate box. For Sale or Show, please circle which one it is. If Movement or any other reason not specified, check "OTHER" and write the reason in the box.
- 5. **COMPLETE HERD TEST**: If the whole herd was tested, check YES and give the number of test eligible animals in the herd.
- 6. KIND OF HERD: Indicate the kind of herd.
- 7. **METHOD OF TEST**: Place an "X" in the appropriate box. Alternate sites should be indicated.
- 8. **SUMMARY**: Indicate the number of negatives, suspects and the total number tested.
- 9. **PRACTIONER' NAME and SIGNATURE**: Always sign the test record and print your name below your signature.
- 10. AGREE CODE: Fill in your IA Federal Accreditation Number or your State License Number. The IA Veterinary License Number is preferred.
- 11. INJECTION/DATE/HOUR: Initials of veterinarian who injects the animals, date and hour of the test.
- 12. **OBSERVATION/DATE/HOUR**: Initials of the veterinarian who observes the test results, date and time. The observation should be completed 72 hours (+/- 6) following injection. It MUST be the same veterinarian who injects and observes.
- 13. IDENTIFICATION: This must be an OFFICIAL identification, usually a 9-digit alphanumeric USDA ear tag which is unique to each animal. An official vaccination tag is acceptable in place of a silver USDA tag. An animal carrying an official tag (even if from other states) should not be retagged nor shall the ear tag be removed. In instances where more than one official tag is present, all tags must be recorded. Currently RFID identification must be accompanied by a USDA silver or official vaccinate ID. If using registration tattoos, give the entire tattoo (must match registration papers, which may be requested), along with the brand on the animal, and their location. Bangle tags are not considered official identification but should be noted along with the official ID. Please indicate if the animal has been re-tagged by putting RT in the space before the identification number. Should you have any questions regarding identification, please contact the VS-IA Area Office.
- 14. AGE: Note the age of the animal in years (Y) or months (M).
- 15. BREED: Enter the 2 letter breed abbreviation. A list of standardized breed codes is provided. For

example, the code for Angus is AG, not AN. If animal is a crossbreed/mixed, the code is XX. Black angus is not a standard breed (and as such, the code BA is for Barzona). "Beef" is also not a breed.

- 16. SEX: Self-explanatory. If castrated, neutered, etc. please note the codes to be used (e.g. castrated male
- is ST for steer).
- **17.** RESULTS: N = negative or S = suspect.
- **18.** OWNER SIGNATURE: The owner or his agent should sign and date the record as of the date of observation.

Cervid TB Testing

To perform tuberculosis testing in cervids, accredited veterinarians (AV) must complete additional training to become a Designated Accredited Veterinarian (DAV). Cervid TB testing can be accomplished in one of two ways: an accredited veterinarian can perform a Single Cervical Test (SCT), or draw blood for the Dual Path Platform (DPP) test. Training for the SCT must be "hands on" with a regulatory veterinarian, either a State District Veterinarian or a USDA Veterinary Medical Officer. This training can be done when a producer requests testing so they do not have to present animals for training purposes only. When the accredited veterinarian has completed the SCT training, they will be certified for the SCT and eligible to perform that test.



Additional training is also required to perform the DPP test. No "hands on training" is required, but there are educational documents concerning the DPP test that need to be read. Once the required documents have been read, the AV needs to sign the training affidavit and send it in to

the Federal office in Des Moines, Iowa. Once the affidavit is on file, the DAV will be able to submit blood samples to NVSL for TB testing in cervids.

Designated Accredited Veterinarians are only allowed to perform the testing that they have completed the training for and have been certified in. It is not required, however, that veterinarians are trained in both procedures if they will only be performing one of the testing methods routinely.

At this time, NVSL is requesting that if you are submitting more than 30 blood samples for DPP testing, you prepare an Excel spreadsheet with the animal information and official ID. Complete the top part of the VS 10-4 submission form as usual; in the sample ID section type in "see attached list". E-mail the <u>VS Form 10-4</u> and the spreadsheet to the following email addresses:

Michelle.L.Redlinger@usda.gov

Breanne.N.Marpe@usda.gov

April.S.Keicher@usda.gov

If this method of submission is used, it is not necessary to complete the standard TB submission form (VS Form 6-22). <u>Note</u>: At this time the DPP test kits are inconsistently available from the manufacturer and there is a backlog of testing at the National Veterinary Services Laboratory. DPP samples may still be submitted to the NVSL to fulfill testing requirements for TB herd accreditation, but there may be a considerable amount of time before the kits become available and the testing can be completed. Cervid movement is not allowed to occur past the 36-month anniversary date for accredited herds until the negative test results are available. If a producer needs to move or sell animals, performing the SCT may be necessary. It may be prudent, therefore, for a DAV to be trained in both methods of testing. **Please contact USDA APHIS VS office at (515) 284-4140 or the regulatory veterinarian in your area for more information.**

DPP Training Documents

DPP Frequently Asked Questions

http://www.iowaagriculture.gov/animalIndustry/IVAH/DPPFrequentlyAskedQuestions.pdf

TB Diagnostics

http://www.iowaagriculture.gov/animalIndustry/IVAH/TBDiagnostics.pdf

VS Guidance Document 6701.3 DPP Testing

https://www.aphis.usda.gov/animal_health/animal_diseases/tuberculosis/downloads/vsg6701.3-primary-secondary-serological-test-for-diagnosing-bovine.pdf

Cervid TB Serologic Testing/DPP Training Affidavit

https://iowaagriculture.gov/sites/default/files/animal-industry/pdf/SerologicTestingAffidavit.pdf

TUBERCULOSIS ACCREDITATION UNIFORM METHODS & RULES

Because the regulations are currently evolving and changing at a rapid pace, including excerpts would be outdated shortly after they were included. Therefore, it has been decided to NOT include excerpts from the UMR at this time. However, the links below provide access to the Tuberculosis UMRs for various species and should be referred to if you need specifics on Tuberculosis rules and methodology. The location of the actual regulations would be the 9CFR. The CFR also contains the details for many other regulations that Accredited Veterinarians must adhere to. Therefore, a link to that is also included below.

2005 Bovine TB UMR (Cervids not included)

http://www.iowaagriculture.gov/animalindustry/BovineTuberculosis2005UM&R.pdf





1999 Bovine TB UMR (Cervid section valid)

http://www.iowaagriculture.gov/animalindustry/BovineTuberculosis1999UM&R.pdf

9CFRhttp://www.iowaagriculture.gov/animalindustry/9CFR-Tuberculosis.pdf



Brucellosis Program

Overview

- There are cattle and swine brucellosis programs.
- Most states have Brucellosis Free status, but statuses change. Check USDA website for current statuses.
- Methods of brucellosis surveillance:
 - Slaughter
 - Diagnostic
 - BRT (Brucellosis Ring Test)
 - First Point of Contact

Role of Private Practitioner in the Brucellosis Program

- 1. Aging cattle for vaccination or test eligibility.
- 2. Vaccination (Vaccination between ages 4 and 12 months-<u>lowa</u> law)
- 3. Official Identification at the time of vaccination.
 - A. Tattooing (Vaccination Tattoo) Right ear, e.g. RV4
 - B. Tagging with official Identification Right ear, e.g. 42VVD1942
 - Brucellosis tags are orange
 - They are to be used ONLY for brucellosis vaccinations, NOT for other ID
 - Silver tags are for general IDENTIFICATION
 - 42 is the State code number for Iowa
 - V means the animal is a brucellosis vaccinate
 - 4. Adult vaccinations are only to be administered with **PRIOR** approval by State Veterinarian.
 - 5. Completing and distributing official forms remember it is the accredited veterinarian's responsibility to make sure that the correct forms are distributed.

Common Mistakes by Veterinarians

- 1. Overage Vaccination
 - Animals that vaccinated about the required age have a propensity to test positive
 - Difficulty distinguishing them from true positives
- 2. Improper Identification of Animals
 - Improperly tagged and / or failure to record official identification on test or vaccination forms.
 - Official tests require animals to be officially identified, also remember to record ALL forms of identification present in the animal.
- 3. Allowing technicians to vaccinate and/or bleed animals without direct supervision of the accredited veterinarian.
- 4. Late or Improper distribution of forms. Brucellosis vaccination forms (VS Form 4-24 and VS Form 4-26) are required to be sent to the State office within 30 days after vaccination.
- 5. Mishandling vaccines
 - Veterinarians need to handle the vaccine properly to maintain efficacy, and the zoonotic risk associated with self-injection (RB 51 vaccine)
- 6. Controlling possession of Tattoo Shield and Vaccination Tags

Brucellosis Uniform Methods & Rules:

https://www.aphis.usda.gov/animal_health/animal_diseases/brucellosis/downloads/umr_bovine_bruc.pdf

RB51 Vaccine:

https://www.aphis.usda.gov/animal health/animal dis spec/cattle/downloads/rb51 vaccine.pdf



BRUCELLOSIS TESTING INFORMATION

- 1. Preferably, blood samples should be collected in a serum separator vaccutainer tube or a plastic 5cc microbleeder tube.
- 2. Write your Agreement Code and a sequential number corresponding to each sample tube on the VS Form 4-33 (Brucellosis Test Record). Label tubes on the collar (wipe first!) with a Sharpie marker to avoid accidental erasure.
- 3. The blood samples should be allowed to clot at room temperature; AVOID heat and cold extremes and direct sunlight. After clotting, place samples on the top shelf of a refrigerator. **DO NOT FREEZE!**
- 4. All blood samples should be submitted to a commercial diagnostic laboratory (see examples on the laboratory list 5-2).
- 5. OVERNIGHT samples to ensure arrival at the laboratory the next working day. If you collect blood samples on a Friday or Saturday, refrigerate them over the weekend and overnight on Monday. If samples are allowed to sit 2-3 days in the heat or extreme cold they may arrive hemolyzed and will be useless.
- 6. A VS Form 4-33 (Brucellosis Test Record) must be used for all field testing.
- 7. No unofficial card or CITE tests are to be done in the field.

BRUCELLOSIS TEST RECORD (VS FORM 4-33)

COUNTY	1		CODE	CC	OPERATI		-FED	ERAL B	RUCE	LLO	SIS EI	RADICATIO						
HERD NU	MEE	R	HERD OW	NER	LAST	3	FIF	ST		,	NITIAL	PRE TEST	DATE	VET C	ODE	TOTAL	REA	\$05
TEST PA		WBBS	POST OFF		OAD			STATE		(2)	P CODE	/ certi	FEDERAL EMPLOY	_	FEE BASIS (Federal)		STATE COUNTY	PRIVATE (Owner's Expense)
Slaughte	-	ST IN	d Cert./	RETEST 6	RGE	TWP SE	c	DISTRIC	T	FA	NU MA	correc	tly listed o	ach tube nu bers and let	imber with o	complete co	rresponding been listed.	identification
Lvst. Mk Res	13	2 P	ost Move Quar. & Test	7	ALL.	LETE HERE	TEST	OF .S	NEG	1	ARY 7		en or will	be received	from any of	her source.		AGREE CODE
Susp. Ri Test	ng	3 4	Area Test	8	YES	NO NO	IN HE	RD	ATIV			ROUTE	STREET.					DATE BLED
Diagnosi	ic		pidemiology	10	DAIRY	BEEF	<u> </u>	XED	SUS- PEC1			, Accita	- Inc.	1,010				11
PVI Sale	_		Other Specify below		LABORATOR	Delow	R (Spec	city	REAC			POST O	FFICE		ST	ATE	ZIP CODE	PIELD TEST
					PLACE	DA	E	TOTA		AL.		REACTO		AGREE CODE				
DATE LIS	TED		1		BY	inco	_					LABORA	TORY RE	SULTS	TES	T	MARKS	REACTOR TAG NUMBER
TUBE NO.	2		RECORI IDENTIFIC NUMBE	CATION		VACC	AGE	BREED	SEX	FLD	RST	CARD STT	RIV	CF	in- terp	ADD	AND ITIONAL RMATION	
12	13		14	1		15	16	17	18						19	I	20	21
		2																
		3																
-	T	•																
_	-	5	-				1											
_	-	6	_							-					-		-	
		7													4			
	1																	
		9																
-		10							Т				Г					
-	t	ti-													+			
	+	12					-		+				1					
	+	13						-	-				-					1
	-	14	-						+	-			-	-		-	_	-
	-	15					-			-						-		
		3								=								
NA - N	atur	AB - At al Addition ased Add	0		rd ALL g(s) and o(s)	Record Legible Charact		N-	LD TE CODE Nega Posit	tive	S	- Negative - Suspect - Reactor	Classifie					TEST AUTHORIZATION EXPIRES

COMPLETING BRUCELLOSIS TEST RECORDS

All test charts must be completed **legibly in their entirety** and will reflect the true status as determined by the testing veterinarian. If an item is not applicable, mark an "NA" or a dash indicating that it has been reviewed.

- 1. STATE: Iowa, may be abbreviated IA.
- 2. **COUNTY:** Name of county where animals are located.
- 3. **HERD OWNER'S NAME**: Legal name of owner should be entered in this block, last name first. If a ranch/dairy name, follow it with a contact person and physical location of the animals, complete address including zip code. If a livestock market, put name and address of the market in box and put the owner's name above.
- 4. **REASON FOR TEST**: Place an "X" in the appropriate box. For Sale or Show, please circle which one it is. If movement or any other reason not specified, check "Other" and write the reason in the box.
- **5. COMPLETE HERD TEST**: If the whole herd was tested, check YES and give the number of test eligible animals in the herd.
- 6. KIND OF HERD: Indicate the kind of herd.
- 7. **SUMMARY**: Indicate the number of negatives, suspects and the total number tested.
- 8. **CERTIFICATION FOR PAYMENT**: Always check private, unless contracted by the State.
- **9. PRACTICTIONER'S SIGNATURE and ADDRESS**: Sign your name legibly. Because there is no room for your printed name on this form, *your signature must be legible*. Indicate your mailing address.
- 10. AGREE CODE: Federal Accreditation Code.
- 11. DATE BLED: Enter the date the animals were bled.
- 12. **TUBE NUMBER**: Use consecutive numbers. Do not duplicate numbers of samples mailed to the laboratory on the same day. Write the number and your vet accreditation code on the top of each blood tube.

- 13. **COLUMN "2":** Indicate in this column if the animal has been re-tagged (RT), is a natural addition (NA), purchased addition (PA), or aborter (AB). The codes are located at the bottom of the column.
- **14. IDENTIFICATION NUMBER**: This must be an OFFICIAL identification, usually a 9-digit alphanumeric USDA ear tag which is unique to each animal. An official vaccination tag is acceptable in place of a silver USDA tag. An animal carrying an official tag (even if from other states) **shall not** be retagged nor shall the ear tag be removed. In instances where more than one official tag is present, all tags shall be recorded.

Currently RFID identification tags listed on a separate attachment must have a copy attached to each carbon copy of the Brucellosis forms.

- 15. VACCINATION TATTOO: Enter as shown in the animal's ear. Record all legible characters.
- **16. AGE**: Note the age of the animal in years (Y) or months (M).
- 17. **BREED**: Enter the breed abbreviation. A list of standardized breed codes is provided. For example, the code for Angus is AG, not AN. If animal is a crossbreed/mixed, the code is XX. Black angus is not a standard breed (and as such, the code BA is for Barzona).
- 18. SEX: Female (F) or male (M). Steers are **not** tested.
- 19. **TEST INTERPRETATION**: N = negative, S = suspect, or R = reactor
- 20. **REMARKS AND ADDITIONAL INFORMATION**: Additional info and/or other pertinent data. This includes plastic ear tags and neck chains. Always correlate these with a USDA silver ear tag. With commercial tags, show the type and color.
- **21**. **REACTOR TAG NUMBER**: Reserved for reactor tag placed in the left ear of a brucellosis infected animal.

BRUCELLOSIS VACCINATION RECORD (VS FORM 4-24)

COUN	I	CODE	COOP		35.57	TE-FE	DERAL B	ST BE PROMPTLY RUCELLOSIS ERA SIS VACCINATION ECORD	DICATION PROG	DEPARTMENT OF	NSPECTION SERVICE
HERD	NUMBER		HERDO	WNER LA	ST	3	FIRST	VACCINE USED		ON DATE	
OWNE	RNUMBER		ROUTE-S	TREET-R	DAO				SERIAL NUMBER	DOSAGE TULL REDUCED	VACC. TATTOO
DAI		POST OFFICE STATE ZIP							CERTIFICATION F	FEE STA	
REMAR	KS	WBBS	CV AV	RGE	TWP	SEC	DISTR	ICT FARM UNIT	I CERTIFY THAT. Strain 19, lattooed	(1) I have vaccina	ited with
NO		IDENTIFICATION AS (M)			SEX	P/B- GRADE	TATTOO	properly identified all UM & R, and recorde (2) when payment is	animals listed hered d all information as p claimed at program e	on as prescribed l prescribed by Sta expense in accord	by the Brucellosis te regulations; Jance with agree-
ž.	1.5	•	17	IB	19	50	21	ment number below source.	no payment has been		10 10 11 11
2								Signature		Date of Vacci- nation	Agree, Code
3							2	CERTIFICATION C	nimals listed hereon		and identified
4			-	-				Signature 15	milet.	Date	
5								CERTIFICATION FO	R RE-ESTARI ISH	ING VACCINAT	PUTATE MOI
6						1-		* indicate tattoo of a		But bear ships	were extenses
7			411					I CERTIFY THAT I have read the official tattoo(s	personally examined to and have retagged to	he animal(s) noted nem as shown.	hereon, and have
			17					Signature		Date	
	RM 4-24 (AU	G 83)	Previous ed	lition may	be use	d.			DAI	RT 1 - DEFICE	

COMPLETING BRUCELLOSIS VACCINATION RECORDS

All test charts must be completed **legibly in their entirety** and will reflect the true status as determined by the testing veterinarian. If an item is not applicable, mark an "NA" or a dash indicating that it has been reviewed.

- 1. STATE: Iowa can be abbreviated as IA.
- 2. **COUNTY**: Name of county in which tested animals are located.
- 3. **HERD OWNER**: Legal name of owner should be entered in this block, last name first. If a ranch/dairy name, follow it with a contact person and physical location of the animals, complete address including zip code.
- 4. VACCINE USED: This will be RB-51, unless permission to use Strain 19 has been obtained.
- 5. **EXPIRATION DATE**: This is the expiration date of the vial of vaccine being used.
- 6. **SERIAL NUMBER**: This is the serial number from the vial of vaccine being used.
- 7. **DOSAGE**: Mark the appropriate dosage being used, full or reduced.
- 8. **VACCINATION TATTOO**: Place the tattoo being applied to the animals in this block, it should read: type of vaccine {R}, shield {V} and last number of the calendar year in which the vaccine is administered [0-9], e.g. RV1 for 2011.
- 9. **KIND OF HERD**: Indicate the kind of herd; Dairy, Beef, or Mixed.
- 10. **CV or AV**: CV is for calfhood vaccinate, AV is for adult vaccinate. Adult vaccination is only to be administered with prior approval of the State Veterinarian and the AD.
- 11. CERTIFICATION FOR PAYMENT: Always check private, unless contracted by the State.
- 12. **SIGNATURE**: Sign your name legibly. Because there is no room for your printed name on this form, **your signature must be legible**.
- 13. DATE OF VACCINATION: Enter the date the animals were vaccinated.
- 14. AGREE CODE: Federal Accreditation Number.
- 15. **CERTIFICATION OF OWNER OR WITNESS**: The owner or designated agent must sign and date the vaccination record.

- **16. IDENTIFICATION NUMBER:** Place the official ear tag number (the vaccination tag number) in this block. If using registration tattoos, give the entire tattoo (must match registration papers, which may be requested), along with the brand on the animal, and their location.
- 17. AGE: Note the age of the animal in years (Y) or months (M).
- 18. **BREED**: Enter the breed abbreviation. A list of standardized breed codes is provided. For example, the code for Angus is AG, not AN. If animal is a crossbreed/mixed, the code is XX. Black Angus is not a standard breed (and as such, the code BA is for Barzona).
- 19. **SEX**: Enter F. The only official calfhood vaccinates are female.
- 20. P/B-GRADE: Mark this block if the animals are purebred (registered) or grade calves.
- **21**. ***TATTOO**: If you are retagging animals previously vaccinated and tattooed, show the existing tattoo. Sign and date the "Certification for Re-Establishing Vaccination Status" block.

BRUCELLOSIS USDA UNIFORM METHODS & RULES

Because the regulations are currently evolving and changing at a rapid pace, including excerpts would be outdated shortly after they were included. Therefore, it has been decided to NOT include excerpts from the UMR at this time. However, the links below provide access to the Brucellosis UMRs for various species and should be referred to if you need specifics on Brucellosis rules and methodology.

The location of the actual regulations would be the 9CFR. The CFR also contains the details for many other regulations that Accredited Veterinarians must adhere to. Therefore, a link to that is also included below.



2003 Bovine Brucellosis UMR

http://www.aphis.usda.gov/animal health/animal diseases/brucellosis/downloads/umr bovine bruc.p df

2003 Cervid Brucellosis UMR

http://www.aphis.usda.gov/animal_health/animal_diseases/brucellosis/downloads/bcervumr.pdf

1998 Swine Brucellosis UMR

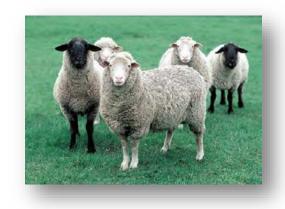
http://www.aphis.usda.gov/animal_health/animal_dis_spec/swine/downloads/sbruumr.pdf



THE IOWA SCRAPIE PROGRAM

History

Scrapie is a Transmissible Spongiform Encephalopathy of sheep and goats that is transmitted at the time of lambing or kidding via exposure to placenta and birth products. It is a non-zoonotic, fatal prion disease of sheep and goats. The National Scrapie Eradication Program was launched in November 2001. Iowa and the USA is making progress toward this goal. Two key factors essential to success have been individual identification of sheep and goats to allow tracing, and the national Regulatory Scrapie Slaughter Surveillance (RSSS) program. RSSS began in 2003, and by the end of FY2016, the percentage of sheep found positive to



Scrapie at slaughter has dropped by 99% from 2003. This suggests that the approximately 570 Scrapie- infected flocks that have been identified and cleaned up since the beginning of the program have made a real dent in the prevalence of scrapie nationwide.

Identification

A primary component of the Scrapie Program is having all sexually intact sheep and goats identified, and therefore traceable to their flock of birth, and subsequent flocks where lambing/kidding could have occurred. This is accomplished by requiring that all sexually intact sheep and goats are identified before, or upon departure from their flock of birth. The program also relies in part on producer and market/dealer records, and hence record- keeping

requirements are also specified. Sheep and goat producers, markets, and dealers can be issued free "scrapie tags" – official USDA ear tags approved for use in the scrapie program, by calling 1-866-USDA- TAG. Requirements for goats vary slightly, with some goats currently being exempt from ID requirements, and official tattoos also being acceptable. For more information visit the IDALS website at: www.iowaagriculture.gov/animalIndustry.asp



Regulatory Scrapie Slaughter Surveillance

Currently there is a slaughter surveillance program targeting adult sheep and goats at slaughter. This is our primary method for identifying scrapie-infected flocks/herds.

On Farm Testing

As we get further along in the eradication program, we will depend more and more on producers and veterinarians to report sheep and/or goats that have clinical signs resembling Scrapie to find the last remaining cases of Scrapie.

Flock Clean-Up Plans

State and federal district veterinarians are responsible for working with owners of infected flocks to complete scrapie flock clean-up plans. This usually involves genetic testing to identify scrapie-susceptible sheep, if funds are available for these animals, and cleaning and disinfecting of lambing areas. All goats are susceptible to scrapie and so all goats in a scrapie infected flock/herd are indemnified if there are funds and removed.

Scrapie Genetic Resistance Testing

Practitioners may be called upon by their clients to do genetic testing for scrapie. When you collect blood for genetic samples, be sure to review the guidelines so that the test meets the requirements for an official test under USDA policy (see attached sheet). For more information on scrapie-resistance genetics see the attached hand-out; "Genetics of Scrapie Resistance for Rams".

For More info on the Iowa Scrapie Program visit the Scrapie Pages at the IDALS website!

2019 National Scrapie Eradication Program Standards

https://iowaagriculture.gov/sites/default/files/animal-industry/pdf/2019ScrapieProgramStandards.pdf

Genetics of Scrapie Resistance for Rams (A genetics review for sheep producers)

The primary gene that determines whether an animal is *susceptible* to scrapie (can easily get scrapie), or whether it is *resistant* (almost never becomes infected with scrapie) is a gene located at **codon 171** that consists of a pair of factors usually designated as "R" and "Q". "R" is the gene most resistant to Scrapie in the United States, and "Q" is most susceptible. So an animal that is "RR" is very resistant, and there have been no known cases of scrapie in "RR" sheep in the United States. An animal that is "QQ" is the most susceptible to scrapie, and almost all known cases of scrapie have been in "QQ" sheep. Sheep that are "QR" are usually resistant to scrapie; there have only been three known cases of scrapie in "QR" sheep in the U.S. (with these few scrapie-infected "QR" animals, another genetic factor seems to come into play, located at codon 136. See more on this below).

When it comes to rams used for breeding, we need to think beyond genetics that will protect the ram itself from getting scrapie. We need to think of what "genotype" will pass on the most protection to the flock. A common misconception is that if a ram has one "R" then he's good for breeding with respect to scrapie. In actuality, while the ram may be protected from getting scrapie, many of his offspring will not be! Using only "RR" rams for breeding will produce offspring that are resistant to Scrapie.

If you've ever studied basic genetics in school, then you probably remember these quadrants:

	Ram		F	Ram	_	Ram					
	Q	R		Q	R		R	R			
Ewe			Ewe			Ewe					
Q	QQ	QR	Q	QQ	QR	Q	QR	QR			
R	QR	RR	Q	QQ	QR	Q	QR	QR			

In the first example, the ewe and the ram are both "QR". The square shows all the possible outcomes of the offspring: 50% will be "QR", 25% will be "RR", and 25% will be "QQ". This means that even with parents that are usually resistant to scrapie, one quarter of the offspring born to this pairing would be susceptible to scrapie.

In the second case, using the same "QR" ram on a ewe that is "QQ", it's even worse, with half of the offspring being "QQ".

But in the third case, using an "RR" ram, it is impossible to get any "QQ" offspring, even out of a "QQ" ewe. This is how you can "scrapie-proof" your flock if you are saving back your own replacement ewes; by using only RR rams. Over time as the old "QQ's" are culled and home-raised replacements are "QR" or "RR", your chances of having a positive scrapie diagnosis in your flock shrinks down to zero. If you buy replacements, look for a flock that uses only "RR" rams or only purchase QR or RR replacement females.

Remember that scrapie can only be spread by infected female animals at or soon after lambing or aborting, via the afterbirth and fluids. Scrapie infected ewes bred to an RR ram and carrying QR lamb(s) will not have the Scrapie Prion in the afterbirth or birth fluids. So it is possible to limit the spread of Scrapie even in infected ewes by exclusively breeding with RR rams.

Are you getting "Official" Scrapie Resistance Genotype tests? Many labs are now offering scrapie resistance genotype testing (if you are not familiar with scrapie resistance genotype testing please see the lowa Department of Agriculture and Land Stewardship website's scrapie pages at: https://www.iowaagriculture.gov/animalIndustry/scrapieProgram.asp

Many producers are taking advantage of the availability of this testing so as to be able to choose sheep that are resistant to scrapie.

Requirements for an Official Test: An official test is one that is recognized by USDA (sheep only):

- 1.) The sample must have been collected by an accredited veterinarian;
- **2.)** The sample must be submitted to the lab with an official form called a "5-29" (the veterinarian can get these from the Iowa USDA APHIS VS Federal Office, phone (515) 284-4140). These special forms are numbered, and the test results will be linked to that number in the USDA database.



- **3.)** The animal being tested must have an official scrapie tag in place when the sample is taken, preferable from the flock where she/he was born, and the veterinarian must record this complete ID number on the 5-29. It is recommended that any other identification on the animal is also recorded. If the flock of origin ID is no longer in the animal's ear and you replace it with your own official ID, be sure to keep a record to show what ID was in the animal and what ID you replaced it with.
- **4.)** The blood must be sent to a USDA Approved Lab. These are labs regularly monitored by USDA for accuracy.

A list of approved labs can be found on the USDA scrapie web site:

https://www.aphis.usda.gov/animal_health/lab_info_services/downloads/ApprovedLabs_genotyping.pdf
The listings change periodically, so always check the website before submitting a sample.

Why are official tests important? Most labs provide reliable results, and in most instances, when you want to know your sheep's genotype for your own selection purposes, sending a sample in on your own can make sense (and many of the Approved Labs accept private samples from producers). Official tests are particularly important with respect to the state/federal scrapie eradication program. When an ewe which originated in a flock that is later found infected with Scrapie is traced to your flock (you purchased the ewe), and this animal is no longer available for testing either due to death or sale, an official test on record for this animal can save you from the need to do further testing within your flock to rule out the likelihood of scrapie exposure. In these instances there is a concern that this ewe could have spread scrapie in your flock. If the ewe were still there, then this possibility can be ruled out by testing the ewe. But since the animal is missing, other sheep in your flock must be tested, and some may even be indemnified and sampled at slaughter in order to look for scrapie infection. In some cases, when these animals are too young to test, they may have their movement restricted until a later date. This process can be lengthy and frustrating. (This "missing ewe" situation is also particularly difficult with flocks where there are also goats on site, since goats cannot be genotyped, and all goats would be considered "QQ" and some may have to be indemnified and sampled). When a ewe was purchased and is no longer available to test, a previous "official" genotype scrapie resistance test can resolve this issue if the ewe tested "QR" or "RR" (if she tested "QQ", or in very rare cases QRAV then further diagnostic testing within the flock would still be required).

Bottom Line: Official scrapie resistance genotype testing is recommended for all purchased sheep that you intend to use for breeding. When sheep are purchased and the genotype results are provided, it may be difficult to verify whether the test was an official test. Retesting of these animals is recommended.

If you have questions or need clarification, please feel free to contact Dr. Greg Schmitt with the Iowa Dept. of Agriculture at 515-669-5633. Your state or federal district veterinarian can also provide information on this subject.

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0579-0101. The time required to complete this information collection is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

STATE		ALL INCO	MPLET	E RECORD	OS WILL BE RETURNED FOR COMPLETION FORM A								APPROV	PROVEDOMB NO. 0579-0101				
1		COOPERAT	IVE S	TATE - FE	DERA	L SCF	RAPIE	CONTR	ROI	L PROGE	RAM	Α						
				SCRA	APIE TE	EST RE	CORD					REFE	RRAL NO.					
COUNTY OF OWNER	FLOCK OWNER	'S NAME - LAST		FIRST	3		МІ	PREVIOUS	S TE	ST DATE	PERSON ID	(VETERINA	RIAN/SNG		OTAL			
FLOCK ID	FLOCK OWNER	'S COMPLETE ADD	RESS			CERTIFICATION FOR PA												
4		3							Cooperative State/Federal Owner's Expense I Certify:									
									That this test was made by me on the animals identified below on the dates a entered in appropriate spaces. That when payment is claimed at program expense in accordance with									
COUNTY OF FLOCK	5	FLOCK OWNER'S	TELEPH	ONE NUMBER	l	SEC).	FARM NO.	ag	iat when paymore reement numb ner source.	ent is claimed er below, no	d at program payment ha	expense ir s been or w	accore	dance	d from any		
7 REASON F	OR TEST	COMPLETE FLOC	K TEST (OF ALL ELIGIB	LE ANIM	ALS:	YES	_ NO	VE	TERINARIAN 1		RE		TEL	ЕРНО 1	NE NO 1		
1 SURVEILLANCE	RETEST 6	NO. OF ANIMAL	S IN FLO	оск					VE	TERINARIAN	'S NAME (PI	ease print)		COLL		ON DATE		
2	7	SHEEP	8	KIND OF F	LOCK				VE	TERINARIAN		3			14			
FLOCK (RE) CERTIFI- CATION	INFECTED OR SOURCE RSSS POS.	GOAT MIXED			OTHER						11							
3	8			AB TURN ARC	OUND TIM	ИE			1									
HIGH RISK TRACE TO FLOCK	INFECTED OR SOURCE (NOT RSSS)	5 DAY TURNA	AROUND	9 🗌 1	10 DAY T	URNARC	UND		FA	X NO. OR E-N	IAIL ADDRE	SS		AGR	REEME	NT NO.		
FLOCK				TEST TY	YPE				L		11				15			
OWNER'S REQUEST	MISSING EXPOSED EWE (ME)	171 CODON (ONLY	10 🗀	171/136 C	CODON			l	SFCP		FLOCK ST		TED				
5	10	171/136/1	54 CODO	N			NONE	SOURCE	<u></u>									
IMPORTED	OTHER	OTHER					OTHER											
	umber		Other	ID Numbe	rs	Designation (pos, sus exp, me, n	,	Sex (m,f,cm)	Breed (if unkn face color)	' 3rd	d Eye	lid Info						
				17		18				19	20	21	22	L	R	Seen Unseen		
				• •										L	R	Seen Unseen		
														L	R	Seen Unseen		
														L	R	Seen Unseen		
														L	R	Seen Unseen		
														L	R	Seen Unseen		
														L	R	Seen Unseen		
														L	R	Seen Unseen		
														L	R	Seen Unseen		
										L	R	Seen Unseen						
NOTE: Sample num	OTE: Sample numbers on specimens must be the same as listed on this form.									rd eyelid tiss			_	•	е			
DSE Name: Dr. S	Sharon Fairch	nild & Dr. Gre	ea Sch	nmitt	R	lemarks:												
Address:			9															
	2	23																
Phone Number:						DATE		OWNER'S	SIG	SNATURE:	5	24						
	aron.K.Fairch				-	l her	eby ackn	owledge re	ceiv	ing a conv of			e examine	d and	find co	orrect.		
E-Mail: greg.schmitt@iowaagriculture.gov						I hereby acknowledge receiving a copy of this record which I have examined and find correct.												

COMPLETING SCRAPIE TEST RECORDS

All test charts must be completed **legibly in their entirety** and will reflect the true status as determined by the testing veterinarian. If an item is not applicable, mark an "NA" or a dash indicating that it has been reviewed.

Requirements for submitting samples for official genotype testing:

- Sheep are <u>officially identified.</u>
- The blood is drawn by a Federal or State animal health official or an accredited veterinarian.
- The lab is approved by APHIS (see below).
- The sample also meets any additional requirements set by the <u>approved</u> scrapie susceptibility genotyping lab.
- The sample is submitted with a VS Form 5-29 or State equivalent. **VS Form 5-29** can be obtained by calling the APHIS VS Iowa Area Office at (515) 284-4140.
- 1. STATE: Iowa, may be abbreviated IA.
- 2. COUNTY: Name of the county where the owner lives.
- 3. <u>HERD OWNER'S NAME & ADDRESS</u>: Legal name of the owner should be entered in this block, last name first. Complete mailing address of the herd owner including zip code and phone number.
- 4. FLOCK ID: Scrapie flock ID. For example: IA3421.
- 5. COUNTY OF FLOCK: County of physical location of animals.
- 6. <u>COMPLETE FLOCK TEST OF ALL ELIGIBLE ANIMALS</u>: If whole flock test, check YES and give the number of the test eligible animals in the herd.
- 7. <u>REASON FOR TEST</u>: Place an "X" in the appropriate box.
- 8. KIND OF FLOCK: Place an "X" in the appropriate box.
- 9. LAB TURN AROUND TIME: Mark 10 day turnaround.
- 10. <u>CODON</u>: Use 171 only.
- 11. <u>SUBMITTING VETERINARIAN INFORMATION</u>: Always sign the test record and print your name below, and complete your address and telephone information.
- 12. TOTAL # OF SAMPLES: Complete the total number of samples collected and submitted.
- 13. CERTIFICATION FOR PAYMENT: Check at "owner's expense".
- 14. <u>COLLECTION DATE</u>: Complete the date that the samples were collected.

- 15. AGREEMENT NUMBER: Fill in your Federal Accreditation Number.
- 16. FLOCK STATUS: Place an "X" in the appropriate box.
- 17. <u>IDENTIFICATION</u>: This must be OFFICIAL identification. The animal must have this in the ear. It will be in the form of: State Abbreviation, flock number, animal number, i.e. IA1467 0056. This must be on the form or the test will not be considered to be "official".
- 18. OTHER ID NUMBERS: Record all identification numbers present in the animal.
- 19. <u>DESIGNATION</u>: Check the box N/A (unless told differently by a regulatory authority).
- 20. AGE: Note the age of the animal in years (Y) and months (M).
- 21. SEX: Fill in as appropriate.
- 22. <u>BREED:</u> Fill in the breed of animals if known. This is important when doing an "official" test. **If the breed is unknown, make sure to put in the face color of the animal sampled (i.e. BF, WF, mottled) **
- 23. <u>DESIGNATED SCRAPIE EPIDEMIOLGIST (DSE)</u>: Complete contact information for the Designated Scrapie Epidemiologist in your area. For lowa, use <u>Sharon.K.Fairchild@aphis.usda.gov</u> so the results will be entered into the government data base and be "official". You do not need to put the address of the DSE.
- 24. OWNER'S SIGNATURE: The owner or his agent should sign and date the record.

Be sure to send this to an "approved" USDA genotype testing lab so the results will be official. You can call your DSE: Dr. Greg Schmitt at (515) 669-5633 to find an approved lab. You can also find a USDA approved lab at:

https://www.aphis.usda.gov/animal_health/lab_info_services/downloads/ ApprovedLabs_genotyping.pdf

Pseudorabies Program

History

Pseudorabies (PRV) is a disease of swine that causes death in cattle, horses, dogs, cats, sheep, and goats. The disease is caused by pseudorabies virus, an extremely contagious herpesvirus that causes reproductive problems, including abortion, stillbirths, and even occasional death in baby, breeding, and finishing hogs. In 1989 USDA initiated a PRV Eradication program, and the US was declared free of pseudorabies in commercial swine in 2004. All states in the US are currently classified as Stage V.



Surveillance

Pseudorabies is a reportable disease. Always keep PRV in mind as a differential diagnosis. If it is listed as a surveillance rule-out on an ISU lab submission there will be no charge for this test (check with the IDALS office or the Dx Lab to assure availability). It is still present in the US in wild-type swine in many states. On-going surveillance continues in the form of slaughter sow and boar testing. Any time that a positive or suspect result is attained via this testing then a PRV test chart is issued, and the producer is asked to have testing completed on his or her herd. This testing is to be completed by the producer's regular herd veterinarian. The veterinarian is compensated for his or her services, and the lab fees are paid for, by USDA. The veterinarian must be accredited in order to perform this task and must have a fee basis agreement in place with APHIS.

Conducting PRV Testing

There are two types of PRV test charts: a "Form 1" is for testing that is requested by the State of Iowa. This testing can only be completed by an accredited veterinarian. Breeding swine must be individually officially identified on the test chart. The test chart must be completed accurately, and with all requested information, including the location of the swine, age, and sex (if they are feeder swine, then "mixed" is acceptable). The "Form 2" is for producer-requested testing, such as for export or exhibition. This testing is completed at producer expense, and the lab fees are not covered by USDA. If you have additional questions about conducting PRV testing please contact your state or federal field veterinarian.

Exhibition Testing Requirements

Currently there are no PRV testing requirements for swine returning home from any exhibitions such as county fairs, district shows, jackpot shows, or the state fair. All swine exhibitions must be registered with the State Veterinarian's office.



Johne's Disease

Johne's disease (also called paratuberculosis) is an infectious bacterial disease primarily affecting the intestinal tract. Infected animals may show no signs of the disease until years after the initial infection. It has been estimated that 22 % of the nation's dairy herds have greater than 10 % of the herd infected with Johne's disease. It has also been estimated that 41 % of the nation's dairy herds have at least one ELISA-positive cow. It has been estimated that nearly 8 % of the nation's beef herds are infected with



Johne's disease. Although an 8 % infection rate might seem low compared to the percent of the dairy herds infected, the protocol for testing was used to find beef herds with at least 10 % of the herd infected. The estimated prevalence of 8 % infection rate for Johne's disease should be considered a conservative estimate.



Johne's disease is caused by the bacterium *Mycobacterium avian subspecies* paratuberculosis or MAP for short. The bacteria grow and multiply inside the immune cells of an animal. Johne's disease typically enters a herd as an infected, but healthy-looking animal in Stage I. As the disease progresses in that animal, the frequency and number of bacteria being excreted increase. The infection spreads to herd mates without the owner's knowledge. Calves are the most susceptible group to Johne's Disease. Resistance to the disease increases with the age of the cow.

However, adult cattle can be infected with Johne's disease if they are exposed to large doses of *Mycobacterium paratuberculosis* and/or immunologically compromised.

The incubation period for the disease varies from 1 to 10 years, with most clinical signs of the disease showing up after delivering their 2nd or 3rd calf. Animals exposed between 18 and 24 months of age, and exposed to a very small amount of the organism, likely will not develop the disease until they are older. This may be 8-10 years of age. The most important factors determining when animals with Johne's disease start developing clinical disease are the animal's age when first detected and the dose of the organism ingested.

Common Sources of Infection:

- 1. The most common source of infection is feces or manure. When the microbe is excreted in the feces, it can contaminate the udder, soil or water. Outside the animal, the organism does not multiply well, if at all, but it can survive over a year in the environment because of its resistance to heat, cold, and drying.
- 2. Another source of infection is colostrum and milk from infected dams. The likelihood of Johne's bacteria being excreted in milk of infected females increases as the disease progresses. In beef herds, where calves remain with their mothers and nurse daily, the chance for transmission of the infection through colostrum and milk





is high. The bacteria may be excreted directly through the mother's milk or, it might be present on the outside the teats in contaminated feces.

- 3. Prenatal exposure may be a source of infection for calves. Becoming infected before birth is possible for a fetus, if the dam is in the late stages of disease. Studies have shown that calves born to cows in later stages of Johne's disease were 8 to 40 percent infected while still in the womb.
- 4. Standing water. Pond water contaminated with infected feces is another potential source of infection.
- 5. Pastures contaminated with infected feces.

Things to Remember

Fecal contamination is the main source of infection. Fecal contamination of feed, udders, drinking water and environment help spread the disease. Poor farm hygiene will increase the infection transmission rate. This is why biosecurity is so important in preventing the spread of this disease. Animals that live under good husbandry conditions tolerate the Johne's disease infection better. It would appear that some kind of stress may be involved in causing the cow to become infected.

The Four Stages of Johne's Disease in Cattle

Johne's disease is a slow, progressive disease. The signs of Johne's disease may not be seen until years after the initial infection. If the infection remains unchecked, the rate and number of infected animals in the herd increases over time.

Stage I: Silent, Subclinical, Non-detectable Infection

Stage I is the initial infection: the animal is infected, not showing signs of disease and may be shedding small numbers of microbes into the environment that are not detectable by diagnostic tests. This stage typically starts in calves and heifers less than two years of age. Eventually, these animals progress to Stage II.

Stage II: Subclinical Shedders

In Stage II, the infection is progressing and the animal still does not show any clinical signs. Subclinical shedders are typically older heifers or adult animals that may appear healthy, but are shedding the organism in very high numbers, probably enough to infect others nearby or in contact. Infection is detectable by organism based techniques but not often by blood tests. Shedding in Stage I and II is often cyclical depending on stress conditions such as calving, weaning, environmental, etc.



Stage III: Clinical Johne's disease

In Stage III, the animal is showing the early signs of Johne's disease. Animals with advanced infection may have been brought on by a period of stress. These cattle have acute, intermittent, watery, fetid manure. A loss of weight and drop in milk production are also common signs. Many of these infected animals will continue to eat, and are positive on their serologic tests. Clinical signs may only last from a few days to a few weeks before animals progress on to Stage IV.

Stage IV: Advanced Clinical Johne's Disease.

In Stage IV, the animal has obvious clinical disease and is readily recognized by the trained observer and is detected by diagnostic tests. This is the end stage of the disease. Most animals are very thin with fluid diarrhea. Some will progress form Stage II to Stage IV in a few weeks.



Diagnosis of Johne's Disease

The clinical signs of Johne's disease, diarrhea and weight loss can resemble many other diseases. Some herds will experience poor performance in spite of good nutrition. An excellent way of diagnosing Johne's disease is to detect the bacterium that causes the infection. Since this bacterium is not normally found in the manure of uninfected animals, if detected, it is assumed to be causing an infection and pathology in an animal. <u>Official</u> Johne's disease tests in lowa consist of two tests that are organism based tests. They are the standard fecal culture and DNA probe (PCR).

Standard bacterial culture has been used for almost 100 years. It requires little equipment and is technically simple to perform. It does, however, require experienced technologists who are able to identify the growth of bacterial colonies on the culture medium. The test is moderately expensive, costing roughly \$20 to \$30 / test and takes at least 16 weeks to complete because of the slow growth rate of *Mycobacterium tuberculosis*. Due to the high labor costs of fecal culture, it has been discontinued at the ISU VDL.

A FECAL CULTURE THAT IS POSITIVE INDICATES TRUE INFECTION

DNA probes allow detection of *Mycobacterium paratuberculosis* without having to grow the bacterium. Therefore, they are much faster. A DNA probe test can be done in less than 3 days. The main disadvantage is cost.

There is no commercial test for Johne's disease that detects Stage I or early Stage II infections. So, being completely assured that a single negative-test result certifies an animal is infection-free is not possible.



The fastest and easiest way to measure the infection rate (apparent prevalence) in a herd is by doing a pooled fecal PCR on all animals 2 years and older in a herd. Results are most reliable for herds already confirmed to be infected by isolation of the microbe from at least one animal.

More information on Johne's testing at ISU VDL can be found at:

https://vetmed.iastate.edu/vdpam/about/production-animal-medicine/beef/bovine-disease-topics/johnes-disease

Iowa Rules for Johne's' Disease

Johne's disease is a reportable disease in at least 13 states, including Iowa. The Iowa Department of Agriculture & Land Stewardship (IDALS) does not place any restrictions on the farm where the Johnes infected cattle are located. However, a person shall not knowingly sell cattle with Johnes Disease except directly to a packer or a packer at a livestock market. Johnes infected cattle move to slaughter only using an Owners-Shipper Statement to document the movement.



The Iowa Department of Agriculture and Land Stewardship

(IDALS) offers a Risk Assessment program at no cost for veterinarians and their producers, that will assist them in developing a management plan for decreasing the risk of contracting or spreading Johne's disease. In the Johne's disease risk assessment evaluation, District Veterinarians will assist veterinarians in the field and their producers by walking through different phases of production to determine the potential risk of the herd becoming infected with Johne's disease. The risk assessments can also help the infected herd decrease or eliminate the spread from infected animals to negative animals within the herd.

Ethics

For Cattle Buyers:

It is common that herds get infected only by buying infected cattle. Pre-purchase testing for Johne's disease is today's standard of veterinary practice. Testing the herd of origin is much more reliable than testing only the purchased cattle.



Options in Order of Decreasing Risk of Buying Johne's Infected Animals:

Options	Risk
No Testing	Very risky, > 10 % chance, for each purchased
	animal of being infected
Test individual animal before purchase – don't	Slightly less risky than not testing; more
buy anything from herds with cows suspect or	confidence in negative tests on older animals
positive	than heifers
Quarantine and test after purchase:	Lower risk and is sound policy for several
PCR Testing 2x at 6 month interval	infectious diseases of cattle
Partial test on herd of origin	Low risk of Johne's disease in any animal from
PCR testing 30 head of 2nd lactation or older	such herds, <u>but is not 0 %</u>
cows	
Whole herd testing on herd of origin	Very low risk of Johne's disease if herd test
	100 % Negative

For Cattle Sellers:

Veterinarians should caution cattle owners to beware of the liability laws that might apply to the sale of infected animals. Liability laws protect the buyer against negligence and fraud. Remember, the basis of most consumer protection laws is practicing "the golden rule". Not testing cattle does not avoid liability issues that might arise latter. Test all or part of the herd and disclose the results.

For Veterinarians:

Remember, Johne's disease is a reportable disease. You will need to inform the State Veterinarian's Office of an infected herd. Ignoring a problem and not dispensing correct advice has been used as grounds to sue veterinarians. Veterinarians should protect themselves by confirming the diagnosis and providing proper advice in writing. Strongly advise owners in writing that test positive cows be sent ONLY FOR SLAUGHTER, otherwise you and the client may be contributing to the spread of this infection to other herds.

Johne's Vaccination Program

The whole cell vaccine is prepared from a stock culture of *Mycobacterium tuberculosis*._The bacteria is suspended in mineral oil and sterilized by autoclaving. The vaccine is around 90 percent effective, as shown by trial runs between 1967 and 1976.

Calves are vaccinated by a veterinarian between one to 35 days of age, but preferably after the calf is one week old. The vaccine is given subcutaneously under aseptic conditions in the brisket area. A lump will form at the site of injection of the vaccine, which may vary from one inch in diameter to several inches in diameter. Eighty percent of them are less than four inches. Occasionally, one will break open and drain for a time. It can be hazardous to use, especially if someone were to accidentally inject themselves. The Johne's vaccine will interfere with both TB testing and immunological tests for Johne's disease.



Requirements to use Johne's vaccine:

- 1. Only if *Mycobacterium paratuberculosis* (organism that causes Johne's Disease) has been isolated by an organism-based test (positive fecal culture or PCR).
- 2. Conduct a whole herd tuberculin test of all animals 24 months of age or older prior to signing the agreement.
- 3. Have a Premise ID number prior to signing the Johne's Vaccination Agreement.
- 4. Purchased replacement stock must be tuberculin-test negative before introduction into the herd.
- 5. Cattle that change ownership must be accompanied with a Certificate of Veterinary Inspection (CVI)/Health Paper). Johne's vaccinates should be noted on the CVI with the identifying Johne's vaccination tattoo.
- 6. Herd additions should be from herds not known to be infected, must be tested for tuberculosis or from a TB-accredited herd, and calves under 35 days of age should be vaccinated against paratuberculosis (Johne's) before introduction into the herd.
- 7. A fecal test on all animals three years of age and over is recommended prior to start of vaccination.
- 8. Remove official Johne's test positive cattle and clinical cases for slaughter in accordance with State & Federal Regulations.
- 9. A Johne's Risk Assessment and Herd Management Plan is conducted prior to the start of the vaccination program.
- 10. The herd veterinarian administers the Johne's vaccine to calves between 1 to 35 days of age.
- 11. File and submit a report to the Iowa Department of Agriculture & Land Stewardship (IDALS) within 30 days after the date of vaccination.

FIVE Things to Remember about Johne's Disease and the Control Program

- 1) Johne's disease is a **REPORTABLE** but not a quarantineable disease!
 - This means while any positive Johne's test indicates an 'infected herd', a positive individual fecal (PCR or culture) indicates the organism is present and this infected animal can only leave the premise for slaughter only.
 - "Subclinical" animals can shed the Johne's organisms in their manure and possibly thru colostrum,
 milk and in utero.



- 2) The Johne's Disease Control Program is voluntary and confidential within Iowa statutes.
 - Risk Assessments ('walk-through' bio-risk evaluations) are free from your area state District veterinarian.
- 3) Vaccination can be utilized for control in infected herds with the approval of the State Veterinarian.
 - This management tool has shown great benefit when combined with best management practices.
- 4) Even though youngest animals are most susceptible, older animals can be infected but clinical signs tend to be delayed.
 - Manure is usual means of transmission one thimbleful from a heavy to 'Super-shedder' can infect
 - 'Super-shedders' shed at the rate comparable to 20,000 low shedders and some can be subclinical initially!
- 5) Bulls should never be forgotten! Make sure all bulls are tested with an organism based test before adding to the cows. One positive bull can expose a large percentage of a herd.

Johne's Control Program website for more information:

http://www.iowaagriculture.gov/animalIndustry/johnesDisease.asp

Gary Eiben, DVM Johne's Program Coordinator Cell phone: (515) 669-6095

E-mail: Gary.Eiben@iowagriculture.gov

Johne's Vaccination Fact Sheet

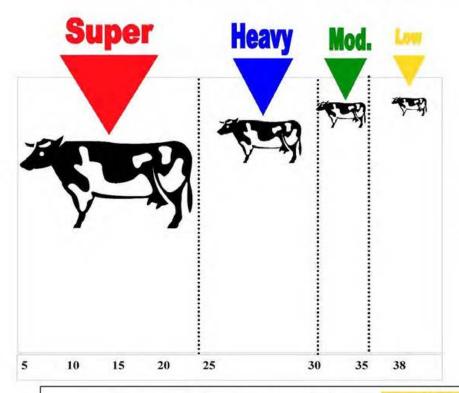
http://www.iowaagriculture.gov/animalIndustry/IVAH/VaccinationFactSheetJohnes.pdf

Johne's Voluntary Herd Classification Program

http://www.iowaagriculture.gov/animalIndustry/IVAH/JohnesVoluntaryHerdClassificationProgram.pdf



PCR Guidelines for Estimating Shedding Categories



	Ct = Cycles to Positive
Sup	er Shedder<22
Hea	vy Shedder22-29
Mod	derate Shedder29-34
Low	Shedder34-38
*In	conclusive38-42
* R	ecommend to retest suspect
a	nimals in 30 to 60 days.

Interpretation

Negative

One Super Shedder is equal to 20,000 Low Shedders!!!

S/P

≤ 0.60

S/P	Interpretation
≤ 0.30	Negative
0.3040	Suspect*
≥ 0.40	Positive

0.6070	Suspect*
≥ 0.70	Positive
*A second cELISA test i recommended to help de fecal PCR or culture to de	etermine status OR utilize

2010 cELISA Interpretation Categories (Serum/Plasma)



Johne's Disease Control Program-Johne's Vaccination Agreement

Between

IOWA DEPARTMENT OF AGRICULTURE & LAND STEWARDSHIP And

Name of Herd Owner

Address

Premise #

And

Name of Iowa Accredited Veterinarian

Address

Vet code (accreditation #)

A. The Department Agrees To:

- 1) Permit use of Johne's disease vaccine only if Mycobacterium paratuberculosis has been isolated by an organism-based test (positive fecal culture or PCR).
- 2) Supply vaccine to veterinarian for administration to calves in owner's herd.
- 3) Receive and file vaccination records and test records.
- 4) Supervise program as necessary.

B. The Veterinarian Agrees To:

- 1) Administer vaccine when calf is from 1 to 35 days of age.
- 2) Identify calf by official ear tag, tattoo, or registry number and further identify calf with a tattoo in the left ear which includes 1, 2, 3, or 4 for the respective quarter of year when vaccinated followed by letter "J" for Johne's, followed by a number (0 9) representing the year when vaccinated.
- 3) File and submit a report to the Department within 30 days after date of vaccination. This report is to include the sex, birth date, and official individual identification and include identification of dam.
- 4) Compensate Department for cost of vaccine.

C. The Owner Agrees To:

- 1) Submit no claims against Department, veterinarian, or vaccine producer losses or adverse effects of the vaccine.
- 2) Compensate veterinarian for administration of vaccine, collection of fecal samples and laboratory charges.
- 3) By Iowa statues, with change of ownership animals must be accompanied with a certificate of veterinary inspection (CVI/health paper). Johne's vaccinates should be noted on the CVI with the identifying Johne's vaccination tattoo. Cattle going directly to slaughter are exempt and do not need a CVI.
- 4) Remove official Johne's test positive cattle and clinical cases for slaughter in accordance with state & federal regulations.
- 5) Have a Premise ID number prior (or submitted) to signing agreement.
- 6) Conduct a whole herd tuberculin test (all animals 24 mos. of age and older) by intradermal caudal fold prior to signing agreement.
- 7) Purchased replacement stock must be tuberculin-test negative before introduction into the herd.

D. It is Mutually Understood and Agreed:



- 1) This agreement is to define in general terms the basis on which parties concerned will cooperate and does not constitute a binding obligation on either party for the expenditures of funds. Each party will be responsible for its own costs under this agreement.
- 2) The responsibilities assumed by each of the parties hereto is contingent upon funds being available from which expenditures legally may be met.
- 3) A fecal test on all animals three years of age and over is recommended prior to start of vaccination program.
- 4) Animals positive to organism-based detection/fecal test (culture or PCR) should be promptly identified and premises cleaned and disinfected following their shipment according to Iowa Code of Law and Administrative Rules.
- 5) Herd additions should be from herds not known to be infected, must be tested for tuberculosis or from a TB-accredited herd, and calves under 35 days of age should be vaccinated against paratuberculosis before introduction into herd.
- 6) Best management practices and biosecurity measures should be instituted.
- 7) The vaccination program will be conducted until one or all parties feel the necessity to terminate.
- 8) This agreement shall become effective upon date of final signature, but may be modified or discontinued at the request of either party. Requests for termination or modification shall be submitted to the other party in writing for consideration not less than 60 days in advance of the effective date of such termination or modification.
- 9) Risk assessment and Herd management plan is conducted prior to the start of vaccination program and perform a RAMP every 3 years or at the discretion of the Designated Johne's Coordinator.

Date		Owner
Date	SA	Veterinarian
Date		District Veterinarian
Date		State Veterinarian, Division of Animal Industry Iowa Department of Agriculture & Land Stewardship



Iowa Johne's Disease Control Program

Dr.Gary E Eiben , Johne's Program Coordinator

C-PUNCH VERIFICATION FORM

Animal ID (Accession#):	
Status of Animal (dead/euthanized):	
Date (C-Punched):	
Owner Shipper Statement issued	res
Owner's Signature: Owner Name & Address: Name	
Address, City, State, Zip Code	
Phone: County	
Discussed Slaughter-Only Restrictions	
District Veterinarian:	
Signature	



Wallace State Office Building

Wallace State Office Building

502 E 9th St, 2nd Floor

Des Moines, IA 50319

502 E 9th St, Des Moines, IA 50319 .

(515) 281.5321

www.lowaAgriculture.gov

Johne's Owner-Shipper Statement

The following livestock (Record ID number and description) are being transported to a livestock market for slaughter channels only:

	CATT	LE	
	Number ID	Ear Tag	Lab Report Accession nos.
Cows/Heifers			
Bulls			

Are animals c-punched? () Yes () No	
Owner Name (Print)	
Owner Signature	
Owner Address	
Market Name and address:	
Livestock Market Representative: These animals are sold	to slaughter only
Signature:	"Please save form in records"
Please return form to:	
Iowa Department of Agriculture and Land Stewardship	
FAX: 515-281-4282	
Bureau of Animal Industry	

Questions? Please contact:

Dr. Gary E. Eiben – Johne's Program Coordinator

Gary.Eiben@iowaagriculture.gov

515-669-6095



What is Trichomoniasis?

Trichomoniasis is a venereal disease of cattle characterized by early fetal death, infertility, rare abortions, and pyometra in cows and heifers, that results in extended calving intervals

- It is caused by a protozoan, *Tritrichomonas foetus*, they can be found in the genital tracts of cattle.
- When cows are bred naturally by an infected bull, 30-90 % become infected.
- Bulls of all ages can remain infected indefinitely but this is less likely in younger males.
- Most females eventually clear the infection, but infertility and infectivity may remain for
 2-6 months following infection and chronic infections can occur.
- Pregnancy typically progresses for 60-120 days, then the fetus dies and is reabsorbed, resulting in an irregular return to estrus.

Problems with Cows

- Producers may notice excessive numbers of cows still cycling at the end of the breeding season.
- Most commonly seen as increases in the number of short-term pregnancies and open cows (up to 40% or more) when pregnancy checked.
- Fetal deaths and abortions can occur, and the organism can be found as late as 8
 months of gestation, and live calves can be born to infected dams.
- Subsequent calving season will be spread out.
- One way of telling if the herd is still infected, is evaluating calf birth dates during the
 following calving season and dividing them into 21 day periods. An affected herd will
 show low conception rates in the first 2-3 periods and have a large percentage of open
 cows.

Problems with Bulls

- Commonly, symptoms are not seen in bulls.
- May occasionally see a purulent preputial discharge.
- Bulls may clear the infection, but often become carriers.
- Bulls older than 4 years-old are more likely to become carriers because they harbor the organism in the penile crypts.



Diagnosis

- History and clinical signs are useful but are similar to other cattle diseases, i.e. campylobacteriosis.
- Confirmation of the disease depends on isolating or testing for the protozoan that causes Trichomoniasis.
- Diagnostic tests are directed at bulls because they are the most likely carriers.

Treatment

- Trichomoniasis is a reportable disease and there is no legal treatment.
- Various drugs have been used to treat bulls, but none are both safe and effective.
- Bulls are susceptible to reinfection after treatment.

Control

- Control consists of eliminating the infection by testing and culling bulls.
- Replacing them with virgin bulls
- Using clean cows (clean cows are assumed to be those with calves at foot) and virgin heifers.
- Vaccine is available for cows for use at 8 and 4 weeks prior to breeding.
- Currently, the vaccine is not labeled for use in bulls.
- Eliminating Risk Factors is the Best Control:
 - Bull exposure from neighboring pastures/herds
 - Cows commingling with neighboring pastures/herds
 - New bull additions without testing (non-tested bulls)
 - Leasing or borrowing bulls
 - Retaining open cows into the next breeding season

Trichomoniasis Response Plan – Iowa

- 1. Conduct herd history and investigation.
- 2. Issue an Order of Quarantine
 - a. All non-virgin bulls
 - b. Cows not over 120 days pregnant



3. Cattle NOT to be quarantined

- a. Virgin bulls less than 24 months of age
- b. Virgin heifers less than 24 months of age
- c. Cows 120 days or more pregnant confirmed by veterinarian
- d. Mature bulls with 2 negative PCR Trich tests (at least 3 weeks apart)
- e. Cows with calf by side and no exposure to cohort bulls or any Trich positive bulls

4. Quarantine release protocol

- a. Release all cows over 120 pregnant- confirmed by veterinarian
- b. Bulls with 2 consecutive negative Trich tests PCR. Testing shall be at least three weeks apart

5. Trich Herd Management Plan

- a. When bulls are pulled from cows after breeding season isolate cows from bulls for at least 120 days and pregnancy test by veterinarian
- b. Use Trich test negative mature bulls, artificially inseminate or use virgin bulls
- c. Trich test all mature bulls at least two weeks after pulling from cow herd. Positive bulls to slaughter. Retest bulls prior to breeding next breeding season.
- d. Cull to slaughter all cows open after 120 days of pulling bulls

6. Practice Good Biosecurity

- a. Use virgin bulls or test-negative bulls
- b. Do not lease or borrow untested bulls
- c. Do not buy open cows unless they have a calf at side and isolated from bulls
- d. Maintain good fences





Iowa's Chronic Wasting Disease (CWD) Herd Certification Program (HCP)

The **Iowa CWD HCP** is a voluntary program. Each herd must have an annual inspection within 90 days of its anniversary date; inventory reconciliation must be conducted by a state district veterinarian. Certified CWD cervid herd status must include all Cervidae under common ownership. They cannot be commingled with other cervids that are not certified, and a minimum geographic separation of 30 feet between herds of different status must be maintained.



Definitions: "Cervidae" means all animals belonging to the Cervidae family. "CWD susceptible Cervidae" means whitetail deer, blacktail deer, mule deer, red deer, elk, moose and related species and hybrids of these species.

Compliance for the CWD HCP: Monitored CWD cervid herd means a herd of Cervidae that is in compliance with the Cervid Chronic Wasting Disease Surveillance Identification (CCWDSI) Program. Monitored herds are defined as one-year, two-year, three-year, four-year, and five-year monitored herds in accordance with the time in years such herds have been in compliance with the Cervid Chronic Wasting Disease Surveillance Identification (CCWDSI) program. The ultimate goal of the CWD HCP is completing five years of compliance and reaching the Certified Status, and then maintaining this status.

Annual Inventory Inspections: A herd is certified for 12 months. Each cervidae herd enrolled in the CWD HCP must have an annual inspection and inventory reconciliation conducted by a state district veterinarian. These inspections must be done annually within 90 days of the CWD anniversary date (initial inventory date). Records shall be kept to document the history/accountability of all animals in the herd, including identification, during the inspection period. These records shall include, but are <u>not</u> limited to:

- 1. All forms of identification date of movement, and sex of all animals moving into or out of the herd. All movement of animals other than to a state or federally inspected slaughter establishment shall be accompanied by an intrastate/interstate movement certificate of veterinary inspection signed by a licensed, accredited veterinarian. A copy of the certificate of veterinary inspection needs to be given to the state district veterinarian at the time of inspection.
- 2. All forms of identification, date of birth, and sex of all animals born on the premise.
- 3. All forms of identification, date of death, and sex of all animals that die, including the cause of death, if known. A copy of the CWD laboratory report of all animals 12 months and older must to be given to the state district veterinarian at the time of the annual inspection.
- 4. A copy of test charts for tuberculosis or brucellosis must be provided to the state district veterinarian at the time of the annual inspection.
- 5. Indentification of all animals that escaped.

Triennial Physical Herd Inventory Inspections: Physical Inventories can be performed as part of an official herd test for tuberculosis or brucellosis. Physical Herd Inventories are separate and different from Annual Inventories conducted by our State District Veterinarians and the Physical Herd Inventories are to be conducted triennially.



Physical Herd Inventories will be required for advancement in the program. Physical Herd Inventory completions are allowed during the 90 days before or the 90 days after your herd's expiration date.

A complete Physical Herd Inventory must provide verification to reconcile all deer and verification of two approved individual identifications (one must be a USDA official identification) with the records maintained by the owner. All Cervid animals must receive the identification before 12 months of age.

The owner must present the entire herd for the Physical Herd Inventory inspection where the department, a state authorized veterinarian (accredited veterinarian) or authorized federal personnel can safely read all identifications on the animals and be able to record all identification devices. A complete physical herd inventory must be performed at the time a herd enrolls in the Chronic Wasting Disease Herd Certification Program.

Official Cervid Identification: All Cervid 12 months of age or older (All Animals under 12 months of age leaving the premises), shall have a minimum of two forms of animal identification. One of these identifications must be a nationally unique official animal identification. The official identification device must be a device approved by APHIS, and must be an 840 visual tag, 840 radio frequency identification devices (RFID), silver/steel and plastic USDA tag or other approved device. Information on official animal identification devices can be found on the APHIS Traceability website at the following address: http://www.aphis.usda.gov/traceability/devices.shtml

The second form of identification must be one that is approved by IDALS:

- 1. A plastic or other material tag that indicates the official herd number issued by USDA, and includes individual animal identification which is no more than five digits and is unique for each animal.
- 2. A legible tattoo which includes the official herd number issued by the USDA, and includes individual animal identification which is no more than five digits and unique for each animal.
- 3. A plastic or other unique material tag which provides unique animal identification and is issued and approved by the North American Elk Breeders Association or by the North American Deer Farmers Association.

Animals that lose their identification should be retagged as soon as possible. All animals 12 months of age or older must have individual identification and it must be reconciled in herd records before the herd status can be advanced.

Official Laboratory Confirmation: Any Cervidae 12 months of age and older that died, or were sent to slaughter, must have the date of death and a negative laboratory report showing the official tag numbers and accession number. A copy of approved laboratory reports shall be maintained by the owner for purposes of completion of the annual inventory examination for recertification. If there are deaths for which tissues were not submitted for laboratory diagnosis due to postmortem changes or unavailability, the department shall determine compliance. If a death is too young to test (TYTT), note date and reason for death.

Movement into a CWD Monitored Herd: (Note of Caution) If a lesser status animal is added to a CWD herd, the whole herd will be lowered to the lesser status.



Intrastate Movement Requirements: All intrastate movement of Cervidae other than to a state or federally inspected slaughtered establishment shall be accompanied by an intrastate movement certificate of veterinary inspection signed by a licensed, accredited veterinarian. Movement of CWD susceptible Cervidae, other than direct movement to slaughter, shall only be allowed from herds that have been enrolled in the Iowa CWD monitoring program and that have successfully completed at least one year in the program. "Been enrolled" means that the herd owner has received from the department written notification of the herd's enrollment and participation in the program.

Intrastate movement certificate shall include all of the following:

- 1. Consignor's name and address.
- 2. Consignee's name and address.
- 3. Individual, official identification of each animal.
- 4. For CWD susceptible Cervidae, the certificate shall include the CWD herd premises number, the herd status level, the anniversary date, and the expiration date.
- 5. For Cervidae other than CWD susceptible Cervidae, the following statement must be on the certificate: "The animal(s) has not spent any time within the past 36 months in a zoo, animal menagerie, or like facility, or has not been on the same premise as a cervid herd which has been classified as a CWD infected herd, exposed herd or trace herd".

Import Requirements: (Health certificate copies must be kept on file for all animals purchased.) Movement, of CWD susceptible Cervidae, other than direct movement to slaughter, shall only be allowed from herds which have satisfactorily completed at least five years in an official recognized CWD monitoring program. Cervidae entering Iowa must be accompanied by all of the following: An official Certificate of Veterinary Inspection issued by a licensed, accredited veterinarian. A permit number requested by the licensed, accredited veterinarian signing the certificate and issued by the State Veterinarian prior to movement must be recorded on the certificate.

One of the following statements must appear on the health certificate:

- 1) For CWD susceptible Cervidae: "All Cervidae on this certificate originate from a CWD monitored or certified herd in which these animals have been kept for at least one year or were natural additions. There has been no diagnosis, signs, or epidemiologic evidence of CWD in this herd for the past five years."
- 2) For Cervidae other than CWD susceptible Cervidae: "All Cervidae on this certificate have not spent any time within the past 36 months in a zoo, animal menagerie, or like facility, and has not been on the same premises as a cervid herd which has been classified as a CWD infected herd, exposed herd or trace herd."

The CWD herd number, anniversary date, and expiration date and herd status must be listed on the Certificate of Veterinary Inspection. Each animal must be officially identified, and all forms of identification must be listed on the certificate. Cervidae originating from an area considered to be endemic to chronic wasting disease shall not be allowed entry into Iowa. Cervidae that originate from a herd that has had animal introductions from an area endemic to chronic wasting disease during the preceding five years shall not be allowed entry into Iowa.



Tuberculosis (TB) Testing of Cervidae: All cervidae 12 months of age and older must be tested negative for tuberculosis (TB) and testing must be done by a licensed, accredited veterinarian that has been certified to test cervidae. All tuberculosis (TB) testing for movement of cervidae must be completed prior to the movement of the animal. (Injection of tuberculin and reading of the injection site 72 hours later must be done prior to movement of the animal).

Brucellosis (BRT) Testing of Cervidae: All cervidae 6 months of age and older must originate from a Certified Brucellosis Free herd, or be tested negative for Brucellosis within 90 days of importation.

Interstate movement requirements: (Animals leaving Iowa) Cervidae leaving Iowa must meet the state of destination's entry requirements prior to movement.

Slaughter Inspection: Slaughter inspection services will continue to be provided at state licensed slaughter facilities. Meat that is intended for retail sale in Iowa must be slaughtered and inspected at a state or federal licensed facility. If you are slaughtering cervidae at a state licensed facility and the meat is for your own personal consumption, the carcass inspection and brain stem submission will not automatically occur. You could retrieve the head yourself from the slaughter facility and take it to your local veterinarian for brain stem and lymph node submissions. This same procedure could be utilized for home butchered animals.

If you have additional questions, contact the State District Veterinarian in your area or:

Dee Clausen Farm Deer Program Coordinator

IDALS, Bureau of Animal Industry, Wallace Building, 2nd Floor Des Moines, Iowa 50319 (515) 281-8236

Revised CWD Program Standards

https://s3.amazonaws.com/public-inspection.federalregister.gov/2018-06341.pdf

ADT/Traceability Fact sheet for interstate transport of Cervids

https://www.aphis.usda.gov/animal_health/animal_diseases/cwd/downloads/fs_for_interstate_m ovement of cervidae species.pdf

Regulatory Sample Collection

https://www.aphis.usda.gov/animal_health/animal_diseases/cwd/downloads/cwd_sample_collection_guid ance_card.pdf

Iowa Department of Agriculture & Land Stewardship Intrastate Requirements

21-66.14(163) Intrastate movement requirements.

66.14(1) All intrastate movements of Cervidae other than to a state or federally inspected slaughter establishment shall be accompanied by an intrastate movement certificate of veterinary inspection signed by a licensed, accredited veterinarian. Movement of CWD susceptible Cervidae, other than direct movement to slaughter, shall only be allowed from herds that have been enrolled in the Iowa CWD monitoring program and have successfully completed at least one year. As used in this subrule, "been enrolled" means that the herd owner has received from the department written notification of the herd's enrollment and participation in the program.



66.14(2) Such intrastate movement certificate shall include all of the following:

- a. Consignor's name and address.
- b. Consignee's name and address.
- c. Individual, official identification of each animal.
- d. For CWD susceptible Cervidae, the certificate shall include the CWD herd premises number, the herd status level, the anniversary date, and the expiration date. The following statement must be included on the certificate:
 "There has been no diagnosis, sign, or epidemiological evidence of chronic wasting disease in this herd for the past year."
- e. For Cervidae other than CWD susceptible Cervidae, the following statement must be included on the certificate:
 - "The animal(s) has not spent any time within the past 36 months in a zoo, animal menagerie, or like facility, or has not been on the same premises as a cervid herd which has been classified as a CWD infected herd, exposed herd, or trace herd."

CANINE BRUCELLOSIS OVERVIEW

PATHOGENESIS AND TRANSMISSION

• Transmission between dogs occurs mainly at breeding time and at whelping time when the dog is under stress. The organism is shed in birthing fluids, semen, urine, saliva, milk, and any other body fluids. Pups can be infected at birth because the organism penetrates the uterus. Dogs harbor the organism in their reproductive tracts. Infection occurs when the organism penetrates the mucous membranes of the eyes, mouth, or the vagina. It enters and lives inside the neutrophils and macrophages (white corpuscles) whose purpose is to fight disease. Because they live inside these cells, antibiotics and the body's antibodies are not able to reach them and kill them. Antibiotics and antibodies may temporarily reduce the number of circulating organisms in the blood stream and consequently appear to mask or reduce symptoms. However, because the organism is intracellular, dogs will stay infected for life because the organism cannot be eliminated from the body.

SYMPTOMS

• There are usually no obvious symptoms of infection, particularly early in the course of the disease. After a period of months, there will be evidence of conception failures and infertility. There may also be abortions in the third trimester of pregnancy, with a prolonged vaginal discharge.

DIAGNOSIS

Diagnosis is normally suspected because of clinical signs such as infertility and or abortions.
 Diagnosis is always confirmed by the use of laboratory tests. These tests include antibody detection tests such as the RSAT, 2ME-RSAT, TAT, 2ME-TAT, AGID II, and IFA. Another diagnostic blood test is the culture of the actual organism from the blood, simply called the blood culture test.

TESTING PROTOCOL

- Iowa uses the blood serology tests as its official testing program, and all dogs 6 months of age and older are tested. The ISU Diagnostic Lab uses the Rapid Slide Agglutination Test (RSAT) as its screening test. It is quick and relatively inexpensive. It can make early detection, as soon as two weeks following infection. A negative test is 99% accurate, but false positives occur because there may be cross reaction to other gram negative bacteria such as *Brucella ovis*, or Bordetella. The addition of 2-mercaptoethanol (2ME-RSAT) to the reagent kills many of the other rogue gram negative bacteria that cause false positives. This results in a more sensitive test and is used by ISU VDL on all positive RSAT tests. In rare cases where the RSAT is positive and the 2ME-RSAT is negative, the dog will be classified as a suspect and retested in 30 days. They seldom stay suspect, either going negative or positive.
- The Tube Agglutination Test (TAT) is another widely used test, and often used as a confirmatory test on a positive RSAT. 2-mercaptoethanol (2ME-TAT) can also be added to make this a more sensitive test. The TAT can detect antibodies after two weeks of infection. The serum may, at the discretion of the State Veterinarian be sent to Cornell University for the Agar Gel Immunodiffusion (AGID II test). This is the most accurate test, but is the most time consuming and expensive. It detects infection after 5-10 weeks post-exposure. All blood collected for these serology tests are collected in red top tubes.
- The state of Missouri uses the blood culture test as their official test. Blood is collected in a Blue top tube (buffered citrate) to prevent clotting. The blood is cultured for the actual organism.

After becoming infected, dogs have the organism circulating in their blood for at least one year. It would be possible to have a false negative, but a positive is a positive because the organism is actually there. False negatives could be eliminated by repeating the test in 30 days. Having two or more consecutive false negative tests on the same dog is highly unlikely.

• In addition to blood culture, there is another organism based test developed by Kansas State University known as the Polymerase Chain Reaction (PCR) test. It is highly specific and sensitive, so a positive is a positive. False negatives can occur if the organism is not present in the blood consistently. As with blood culture, it should be verified the dogs have not been on antibiotics which can result in false negative test results.

TREATMENT

Because the organism lives and reproduces intracellularly there is no effective treatment.
 Medication is not successful and there is no vaccine available because there is no vaccine that is
 effective. The only remaining option is to euthanize and remove any known infected dogs.
 There have been exceptions made in the case of house pets where there is much emotional
 attachment. In certain cases, if these pets are neutered and placed on antibiotics for long
 periods of time, and isolated from the kennel population, they may be kept by their owners.

STATE OF IOWA QUARANTINE REMOVAL PROTOCOL

Any kennel in Iowa containing any test positive dogs will be quarantined by the State of Iowa.
To have this QRT removed the kennel must have 2 complete negative tests at least 30 days
apart of all dogs that are 6 months of age and older. All known infected dogs must be removed,
and euthanasia is strongly recommended. The first test cannot be conducted until 30 days after
the removal of all known infected dogs.

ZOONOSIS ----- TRANSMISSION TO HUMANS

• Transmission to humans can occur, but is not common. Most infections have involved owners who have reported contact with aborting females or the placenta or its fluids. Human infection is usually mild and may include a skin rash and a fever. However, people who are young, or aged, or immunocompromised, may be at risk for the infection to be much worse. In April of 2012 a 3 year old girl was hospitalized in New York City with fever and dyspnea. She was subsequently diagnosed with *Brucella canis*, and the organism was cultured from her blood. History revealed that the family puppy, purchased three weeks prior, was also cultured and found positive for *B. canis*. The puppy was traced back to the kennel of origin in lowa. The kennel was tested, found to be infected, and followed the protocol, and was released from QRT. This is another prime example of why the State of lowa considers *Brucella canis* a serious disease and has a protocol to control and eliminate this disease.

PREVENTION

 The only truly reliable method of keeping Canine brucellosis out of your kennel is to isolate and test ALL incoming dogs prior to introduction into the kennel population. It is best to isolate for 30 days before testing.

Keeping Brucellosis Out of Your Dog Kennel

Establishing an Isolation and Testing Program for Newly Acquired Dogs:

- The isolation facilities must be separated from the rest of the animal holding facilities by at least 30 feet, with no possibility of exposure to urine or feces via runoff/drainage.
- Organic materials removed from the isolation facility (feces, urine, discarded feed, birth/abortion products, etc) must be disposed of in a manner that prevents contact with any other animals.
- No animals running loose outside of cages/runs/enclosures, where nose-to-nose contact could occur.
- Dogs should move through isolation and testing in batches, with no dogs leaving until all have had two negative tests, 30 days after arrival and again 30 days after the first test. (In the event that a Brucellosis test-positive animal is found, quarantine of the entire facility may be avoided if the animal has resided only in the isolation facility since arrival, and no other dogs have been removed from isolation since the arrival of the test-positive dog).
- The isolation facility should have designated boots and coveralls that are put on upon entering, and removed upon leaving the building. Alternatively, boots can be thoroughly washed and disinfected upon entering and leaving. Hands are washed upon entering and leaving. It is recommended that chores in the isolation facility be completed at the conclusion of each day.
- Equipment must not be carried back and forth between facilities. If this must occur, equipment must be adequately cleaned and disinfected.
- The isolation unit should be thoroughly cleaned daily. Upon the discovery of a Brucellosis test-positive dog, the facility, and particularly the dog's pen, should be carefully cleaned and disinfected following the euthanasia and removal of the affected dog.
- It is recommended that breeding and whelping be avoided in the isolation facility.

In the event that a dog belonging to you tests positive for canine brucellosis, an investigation will be conducted, and the entire kennel would be quarantined pending completion of the investigation.

• If it can be determined that the animal has been maintained in isolation from the rest of the facilities, and adequate biosecurity practices, as described above, were observed, then the quarantine would be limited to the isolation facility, and the rest of the business would remain unaffected.

<u>Disinfecting for dog kennels to prevent the spread of Brucellosis</u>

• Brucella is relatively hardy, but not a robust agent. It does not form spores. Most common disinfectants are effective at killing Brucella organisms. It can survive freezing and thawing and can survive for several weeks in milk, water, urine, or damp soil. It will die relatively quickly in dry conditions and is killed by sunlight. Contaminated objects are easily sterilized or disinfected by common methods and most disinfectants. It is essential when disinfecting to remove all organic material such as feces, feed, and bedding, and apply the disinfectant to a thoroughly cleaned surface.

NAHERC

(National Animal Health Emergency Response Corps)

When an animal health emergency occurs, an immediate response is necessary to protect both animals and people. The USDA, APHIS will look to many sources to obtain veterinary personnel to help meet critical staffing needs during such an emergency.

In 2001, APHIS established the National Animal Health Emergency Response Corps (NAHERC) to respond to exotic disease outbreaks and other disasters that affect livestock, poultry, companion animals, and wildlife. More veterinarians are urgently needed to assure a decisive response to any potential animal health crises. More information is available at the NAHERC web site:

https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/emergencymanagement/ct_naherc



Veterinarians with a valid US veterinary from an accredited program and Animal Health Technicians (AHT's) with a diploma and/or equivalent experience are eligible to apply. Applications are available online. Go to http://www.usajobs.gov and, under "Search Jobs," enter the keyword "NAHERC". Select either Veterinarian or AHT job announcement. Follow instructions and enter a short resume. Fax or mail a copy of your credentials to the address provided. For more details or assistance, contact the NAHERC Coordinator at NAHERC@aphis.usda.gov or (301)734-8073.

Tours are typically 21-30 days long. During this time you will become a temporary USDA-APHIS employee. Veterinarians will have the rights and benefits of a GS11 Step 1 Federal employee. AHTs will be paid at the GS7 Step 1 level. You have the right to refuse any assignment.

More recently, training in Incident Command (ICS) and other emergency response protocols has been developed. These classes may be taken at: http://naherc.cfsph.iastate.edu/







Iowa's Rapid Veterinary Information Network IRVIN

IRVIN is a burst e-mail program that exclusively targets Iowa veterinarians who are interested in receiving important animal health bulletins. The program was developed several years ago. IRVIN has been used successfully many times sending informational bulletins on West Nile surveillance, Exotic Newcastle Disease, and the diagnosis of BSE.

The goal of IRVIN is to provide accurate information targeted at veterinarians to provide them details about an outbreak, what responses are appropriate and specific actions that can be taken. The program has been very well received by Iowa veterinarians.

Iowa's Department of Agriculture has always valued the vital role that veterinarians play in protecting Iowa's animal agriculture. IRVIN has taken an incredibly fast efficient way to communicate information with the touch of a few key strokes.

	<u>IRVIN SIGN UP</u>
	Please return this card with the following information:
Veterinarian:_	
Email:	
Address & Tele	nhana

Return to: Iowa Department of Agriculture & Land Stewardship, Bureau of Animal Industry, 502 E 9th St., Des Moines, IA 50319 or call (515) 281-6358

Helpful Links



Iowa Rabies Resource Manual

https://idph.iowa.gov/Portals/1/Files/Rabies/Rabies%20Resource%20Manual-%20Update%20II-%207-8-10.pdf



http://www.interstatelivestock.com/



IDALS Animal Industry News

http://www.iowaagriculture.gov/publications.asp



http://www.equinediseasecc.org/



http://www.iowavma.org/



https://www.avma.org