

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:

<https://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!

****Google Chrome is the best Internet browser for this document****

TABLE OF CONTENTS

• Accreditation Compliance Regulations	10
• Animal Disease Traceability(ADT)/Livestock Official ID	21
• APHIS VS Form 10-11 (Coggins Form)	50
• APHIS VS Form 17-140 Livestock International Health Certificate	44
• APHIS VS Form 7001 International CVI Small Animal	42
• Bovine Trichomoniasis	87
• Brucellosis Accreditation Uniform Methods & Rules	69
• Brucellosis Program	61
• Brucellosis Testing Information	62
• Canine Brucellosis Overview	94
• Cattle Breed Codes	24
• Cervid TB Training & Certification	59
• Completing Brucellosis Test Records	64
• Completing Brucellosis Vaccination Records	67
• Completing Scrapie Test Records	74
• Completing Tuberculosis Test Records	56
• Equine Breed Codes	27
• Equine Infectious Anemia	49
• Genetics of Scrapie Resistance for Rams	71
• Helpful Links	98
• IDALS Form-Dog/Cat CVI	33
• IDALS Form-M Intrastate CVI	34
• IDALS Form-O Livestock Interstate CVI	32
• IDALS State Inspector Map	16
• IDALS Tips on Filling out CVI's	31
• Iowa Bovine Trichomoniasis Response Plan	89
• Iowa Federal AHT Map	15
• Iowa IDALS Regulatory VMO Map	13
• Iowa IDALS/USDA VMO Cooperative Map	14
• Iowa Premises Identification Program	29
• Iowa Reportable Diseases	17
• Iowa Scrapie Program	70
• Iowa State Veterinary Diagnostic Laboratory (ISU VDL)	7
• Iowa USDA Regulatory VMO Map	12
• Iowa's CWD Herd Certification Program (HCP)	90
• Johne's C-punch Verification Form	85
• Johne's Disease	77
• Johne's Owner-Shipper Statement	86
• Keeping Canine Brucellosis out of Your Kennel	97
• National Veterinary Accreditation Program (NVAP)	8
• National Veterinary Services Laboratory (NVSL)	6
• Official Scrapie Resistance Genotype Testing	72
• Owner Shipper Statement	35
• Potential Accreditation Violations	9

TABLE OF CONTENTS

• Pseudorabies Program	76
• Sheep Breed Codes	26
• State & Federal Regulatory Responsibilities	11
• State Codes	28
• Swine/Goat Breed Codes	25
• Tuberculin & Its Application	55
• Tuberculosis Accreditation Uniform Methods & Rules	60
• Tuberculosis Overview	53
• Tuberculosis Testing Information	54
• USDA APHIS Order Form	48
• USDA APHIS Reportable Diseases	20
• USDA Import & Export Requirements for Animals	37
• USDA Veterinary Health Export Certification System	41
• Useful Information-AD & SAHO Office Information	5
• VS Form 4-24 Brucellosis Vaccination Record	66
• VS Form 4-33 Brucellosis Test Record	63
• VS Form 5-29 Scrapie Test Record	73
• VS Form 6-22 Tuberculosis Test Record	56
• VSPS eCVI	36

USEFUL INFORMATION

Kevin L. Petersburg, Area Veterinarian In Charge

USDA/APHIS/VS

210 Walnut St, Room 891

Des Moines, IA 50309

Phone: (515) 284-4140

Fax: (515) 323-2108

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



IOWA DEPARTMENT OF
**AGRICULTURE &
LAND STEWARDSHIP**

USDA APHIS Veterinary Services Homepage

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

IDALS Animal Industry Bureau Homepage

<https://iowaagriculture.gov/animal-industry-bureau>

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/lab-info-services/sa_forms_publications/ct_forms_publications

VS Submission Form 10-4:

https://www.aphis.usda.gov/library/forms/pdf/VS_Form10_4.pdf

NCAH Online Portal

<https://ncahappspub.aphis.usda.gov/NCAHPortal/public/>

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

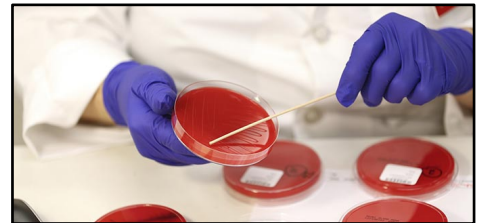
<https://vetmed.iastate.edu/vdl/resources/client-services/isu-vdl-client-web-portal>

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/guidelines/rabies>

ISU VDL EZ-Ship Program

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

National Veterinary Accreditation 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 with questions.

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 CFR

http://www.aphis.usda.gov/animal_health/vet_accreditation/downloads/CFR_Parts_160-161-162.pdf

Check My Accreditation Status

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

USDA NVAP Coordinator

<https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/nvap/nvap-coordinators>

VSPS Interstates Module-Electronic Certificates of Veterinary Inspection

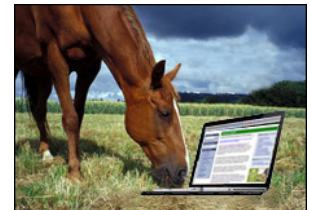
https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/nvap/ct_elec_cert

VSPS User Manual

https://www.aphis.usda.gov/animal_health/vsps_int_lib/downloads/vsps_interstate_user_manual.pdf

VSPS Network Associate Group for assistance with VSPS

<http://www.iowaagriculture.gov/IVAH/VSPSNetworkAssociate.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

What happens when a veterinarian violates the Accreditation Standards?

Most of the time when an error has been made, a Veterinary Medical Officer (VMO) or State District Veterinarian (SDV) 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 SDV is required to write a report to the AVIC concerning the meeting and what was decided in order to avoid the situation in the future. Once the AVIC receives the report, it is reviewed and a file is made. Alternatively, the AVIC may send a Letter of Information or a Letter of 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 AVIC has reason to believe that falsification of documents or other serious violations have occurred, the AVIC 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 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 Enforcement Services)
2. Area Veterinarian In-Charge (AVIC)
3. State Veterinarian or representative from that office

The veterinarian in question will be given the opportunity to explain exactly what had occurred and what actions the veterinarian has taken to prevent a recurrence of violation. The group will present a settlement offer to the accredited veterinarian.

The settlement offer may include:

1. Letter of Warning
2. Suspension of Accreditation

If the settlement offer is declined:

1. Referral of the case to the Office of General Counsel (government lawyers) to consider drafting a formal administrative complaint.

Additional possible consequences outside of an informal conference:

1. All closed accreditation cases are forwarded to the Board of Veterinary Medicine for them to consider taking any action regarding the veterinarian's license (such as a suspension of the license).
2. If the veterinarian's actions involved violations of sections of the CFR other than the section related to veterinary accreditation, the veterinarian may be subject to a stipulation (fine).
3. If a criminal violation occurred, the veterinarian may be subject to criminal penalties.

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 (Trichonomiasis, 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



**IOWA DEPARTMENT OF
AGRICULTURE &
LAND STEWARDSHIP**

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 premise ID numbers and tags for sheep flocks
7. Issuing feeder pig tattoos

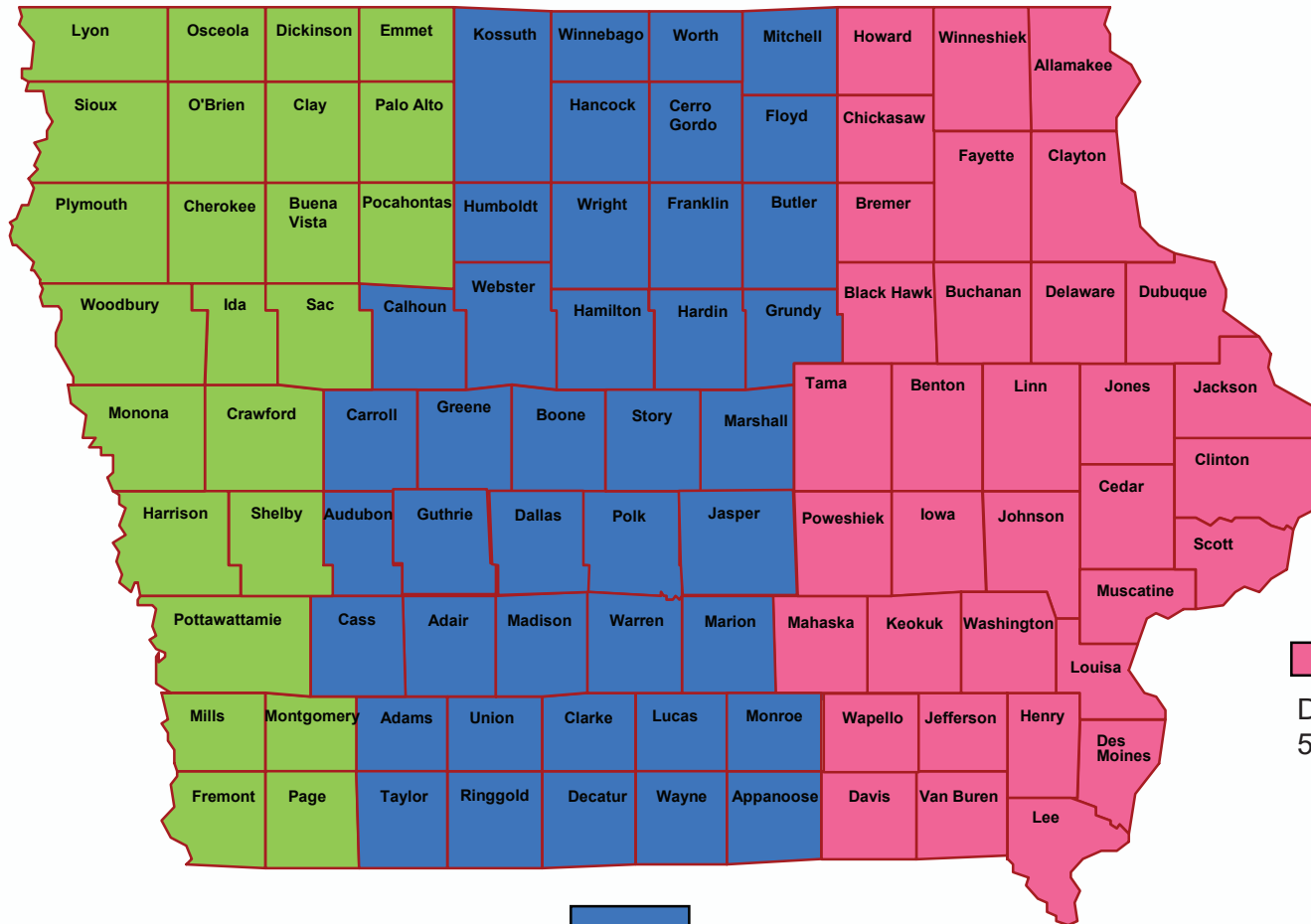


COOPERATIVE BETWEEN STATE AND FEDERAL

1. Pseudorabies investigations and herd clean-up plans
2. Brucellosis investigation and testing
3. Bovine and Cervidae Tuberculosis, including comparative-cervical testing
4. 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) 30 days nor more than 60 days after the show.



Iowa Federal VMO Sections

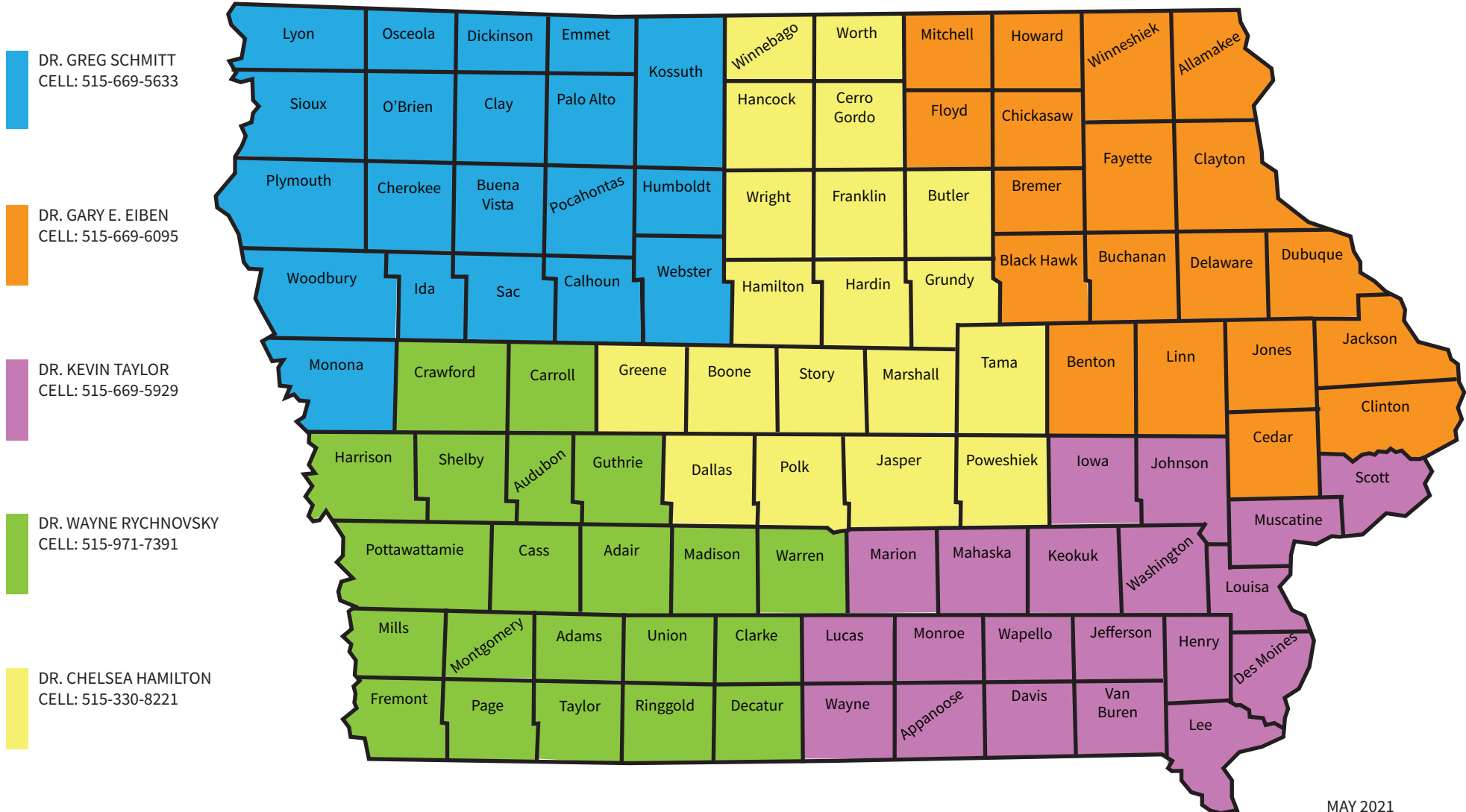


Dr. Andrea
Holmes
515-305-1747


Dr. Bailey Goos
515-350-6922


Dr. Jessica Young
515-201-6150


STATE VETERINARIAN DISTRICTS





STATE/FEDERAL CO-OP VMO SECTIONS


 DR. GARY E. EIBEN
COLESBURG, IA
CELL: 515-669-6095

 DR. CHELSEA HAMILTON
WEST DES MOINES, IA
CELL: 515-330-8221


 DR. ANDREA HOLMES
MARCUS, IA
CELL: 515-305-1747

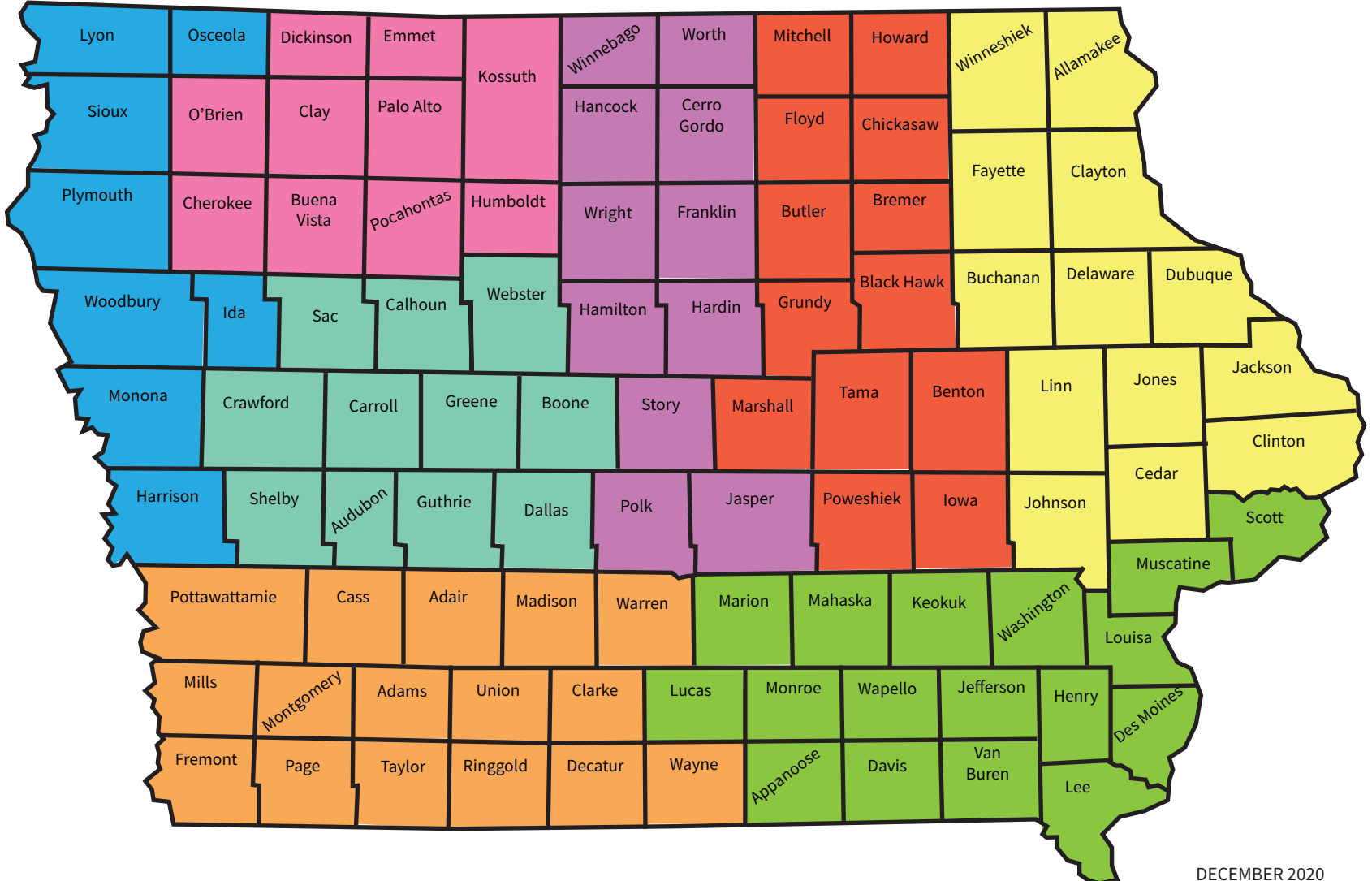
 DR. WAYNE RYCHNOVSKY
CORNING, IA
CELL: 515-971-7391

 DR. GREG SCHMITT
LE MARS, IA
CELL: 515-669-5633

 DR. BAILEY GOOS
TAMA, IA
CELL: 515-350-6922

 DR. KEVIN TAYLOR
BLOOMFIELD, IA
CELL: 515-669-5929

 DR. JESSICA YOUNG
OGDEN, IA
CELL: 515-201-6150

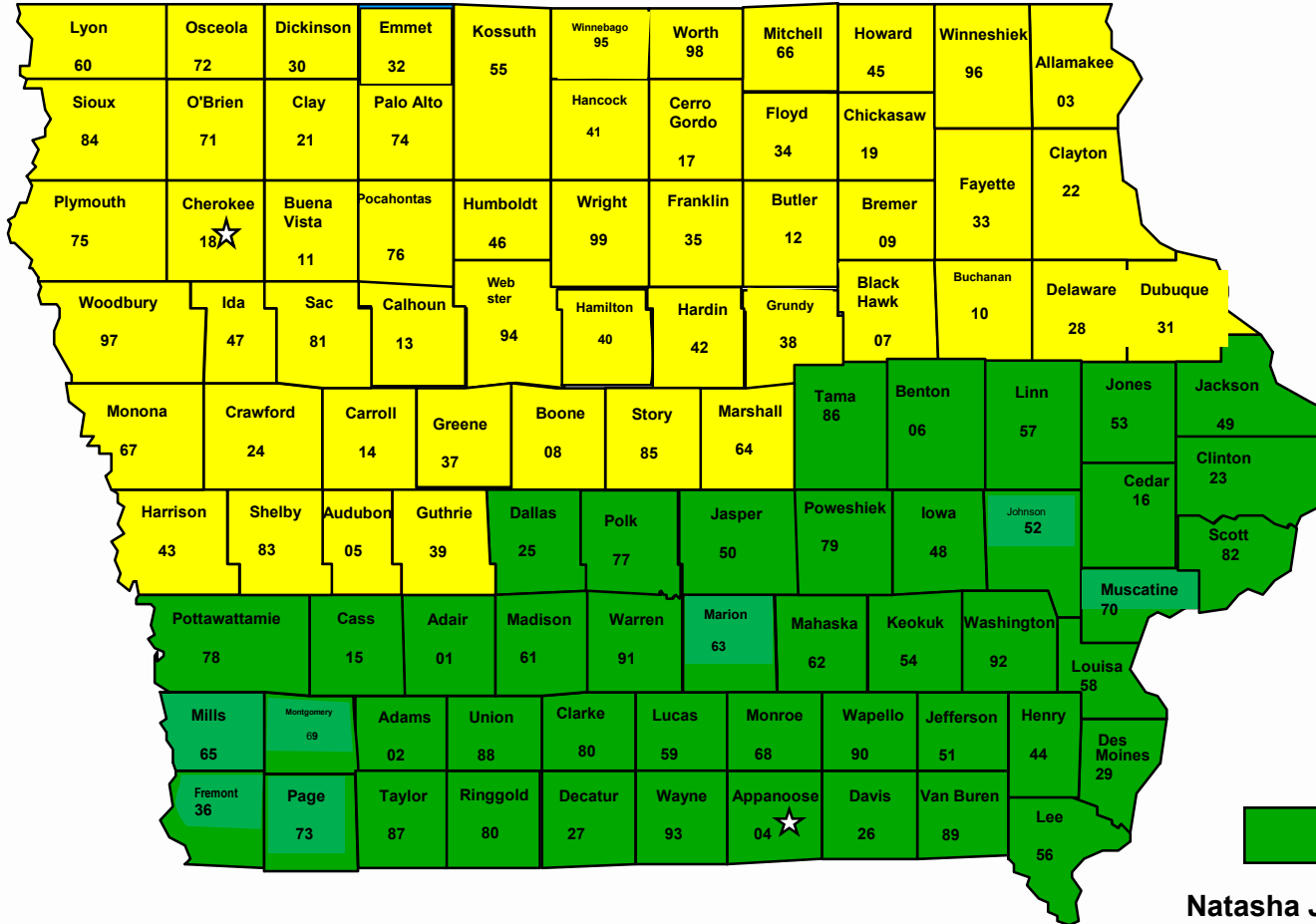


Iowa Federal AHT Sections

1

Stan Lamoureux
Cherokee, IA
515-669-5812

Counties=54
 Livestock Markets=23
 Hog Stations=63
 Sheep Dealers=4
 Total locations=89



2

Natasha Joiner
Centerville, IA
515-669-6028

Counties= 45
 Livestock Markets=21
 Hog Stations=24
 Sheep Dealers=7
 Total locations=52

STATE LIVESTOCK INSPECTOR DISTRICTS

1

Kristin Sadler
Linn Grove, IA
C: 515-333-1578

2

Marc Rue
West Union, IA
C: 515-250-3125

3

Alissa Puffett
West Des Moines, IA
C: 515-313-8315

4

Emily Rogers
Moscow, IA
C: 515-975-3385

5

Sam Burnight
Smithland, IA
C: 515-250-6108

6

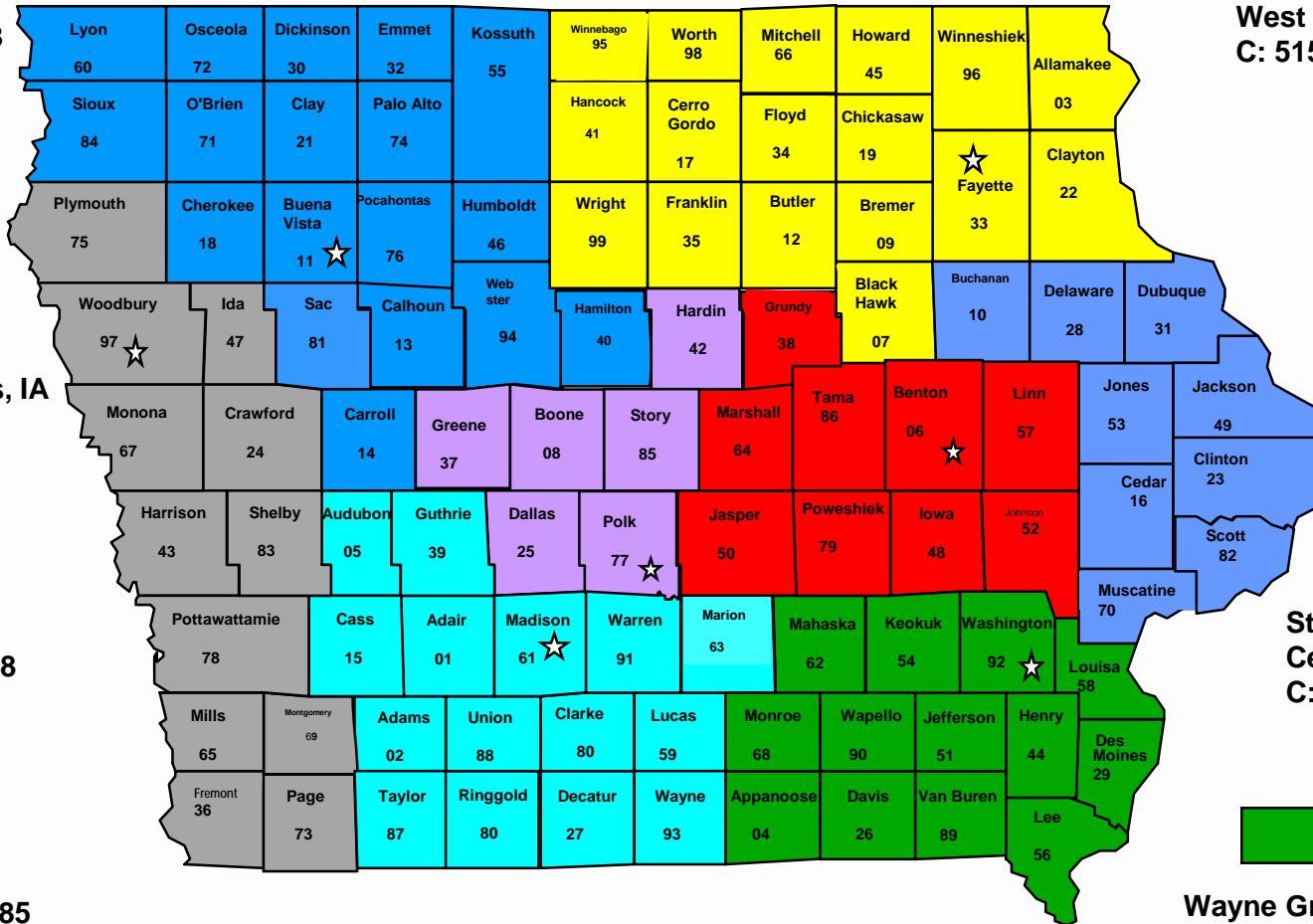
Stephanie Black
Center Point, IA
C: 515-250-3597

7

Bo Greene
Creston, IA
C: 515-326-1685

8

Wayne Grier
Kalona, IA
C: 515-250-3013



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*)
- Q 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 *Xenohalictis 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](#)

[National Animal Health Monitoring System \(NAHMS\)](#)

[Animal Health Surveillance USDA APHIS VS](#)



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

<https://iowaagriculture.gov/sites/default/files/animal-industry/pdf/Handbook/ADT.pdf>

What’s New in Goat ID?

<https://iowaagriculture.gov/sites/default/files/animal-industry/pdf/Handbook/WhatsNewInGoatID.pdf>

Sheep & Goat ID Flow Chart

<https://iowaagriculture.gov/sites/default/files/animal-industry/pdf/Handbook/SheepGoatIDFlowChart.pdf>



Animal Disease Traceability

USDA Animal Disease Traceability Home Page:

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

Final Rule: Traceability for Livestock Moving Interstate:

https://www.aphis.usda.gov/traceability/downloads/ADT_summary_revisions.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:

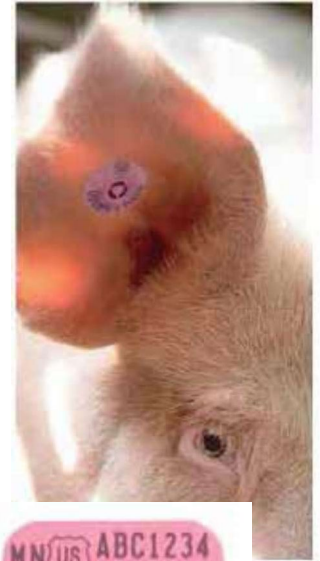
https://www.aphis.usda.gov/traceability/downloads/ADT_device_ain.pdf

Approved National Uniform Ear tagging 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

Official ID must be recorded for each animal. 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 a “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 everyone, from the epidemiologist, to the folks working at the laboratory, to the office staff entering the test information if we record all forms of identification on our test charts.

Yes, it is 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 the identification. If you’re using an electronic reader or have too many IDs to fit on the test chart, then you should have additional paper with you on the farm to record additional IDs 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 the 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 is a cross-breed but is clearly and 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 on the CFT chart. This column is CRITICAL to accredited herds. We use this field to denote natural additions, purchased additions, and re-tagged 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 might 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 is a way to confirm it.

Breed Code Guide

Cattle Breeds and their Abbreviation Codes¹

Code	Cattle Breed	Code	Cattle Breed	Code	Cattle Breed
AN	Aberdeen Angus	FP	East Flemish Red Pied	NM	Normande
AB	Abondance	ER	Eringer	NR	Norwegian Red
AF	Africander	FA	Flamand	OT	Other
AY	Ayrshire	FL	Fleckvieh	PA	Parthenais
BA	Barzona	FR	Fribourg	PI	Piedmontese
BE	Beefalo	FB	Friesian (Belgium)	PR	Pie Rouge
BF	Beef Friesian	DF	Friesian (Dutch)	PZ	Pinzgauer
BM	Beef Master	GA	Galloway (beef)	RN	Romagnola
FF	Belgian Blue	GD	Galloway (dairy)	RA	Ranger
BG	Belted Galloway	GS	Gascone	AR	Red Angus
BW	Black Whiteface	GV	Gelbvieh	RB	Red Brangus
BD	Blonde d'Anuitaine	GR	Groningen	RD	Red Dane (Red Danish, Danish Red)
BO	Braford	GU	Guernsey		
BR	Brahman	HC	Hays Converter	WW	Red Holstein
BH	Brahmental	HH	Hereford (horned)	RP	Red Poll
BN	Brangus	HP	Hereford (polled)	RO	Rotbunte
BU	Braunvieh	SH	Highland (Scotch Highland)	AS	Salers
SB	Brown Swiss (beef)	HO	Holstein	SG	Santa Gertrudis
BS	Brown Swiss (dairy)	HY	Hybrid (Alberta Hybrid)	MS	Shorthorn (milking)
CN	Canadienne	JE	Jersey	SS	Shorthorn (beef-Scotch)
CP	Campine Red Pied	KB	Kobe (Wagyu)	SP	Shorthorn (polled)
CB	Charbray	LM	Limousin	IS	Shorthorn (llawara)
CH	Charolais	LR	Lincoln Red	SM	Simmental
CA	Chianina	LL	Luing	DS	South Devon
XX	Crossbred	MA	Maine-Anjou	DX	Sussex
DB	Danish Black & White	MR	Marchigiana	TA	Tarentaise
DJ	Danish Jerry	ME	Maremmana	TG	Tasmanian Grey
RW	Danish Red & White	MI	Meuse-Rhine-Yssel	TL	Texas Longhorn
DE	Devon	MO	Montbeliard	WB	Welsh Black
DR	Dexter	MG	Murray Gr	WF	West Flemish Red

¹If an animal is crossbred, record the predominant breed with an "X" beside it, (e.g., ANX). Use only "XX" when no single breed is predominant.

Breed Code Guide (cont'd)

Swine Breeds and their Abbreviation Codes

Code	Swine Breed	Code	Swine Breed	Code	Swine Breed
BK	Berkshire	LC	Lacombe	RW	Red Wattle
CW	Chester White	LA	Landrace	SO	Spotted
XX	Crossbred	LB	Large Black	TM	Tamworth
DU	Duroc (Jersey)	LW	Large White	WE	Welsh
FE	Feral Swine	OT	Other	WS	Wessex Saddleback
HA	Hampshire	PE	Pietrain	YO	Yorkshire
HE	Hereford	PC	Poland China		

Goat Breeds and their Abbreviation Codes

Code	Goat Breed	Code	Goat Breed	Code	Goat Breed
AG	Angora	MX	Mixed breed	PG	Pygora
AL	Alpine	MY	Myotonic	PY	Pygmy
BO	Boer	ND	Nigerian Dwarf	SA	Saanen
CS	Cashmere	NS	Not specified	SP	Spanish
KI	Kiko	NU	Nubian	TO	Toggenburg
LN	LaMancha	OB	Oberhasli	XX	Crossbred
MU	Multiple breeds present	OT	Other		

Breed Code Guide (cont'd)

Sheep Breeds and their Abbreviation Codes

Code	Sheep Breed	Code	Sheep Breed	Code	Sheep Breed
BB	Barbados Blackbelly	DO	Dorset	OX	Oxford
BC	Border Cheviot	DP	Polled Dorset	PA	Panama
BD	Babydoll	DR	Dorper	PE	Perendale
BL	Border Leicester	EF	Eastern Friesian	PO	Polypay
BM	Booroola Merino	FI	Finnsheep	RA	Rambouillet
BW	Black Welsh Mountain	FN	Finnish Landrace	RM	Romnelet
BX	Blackfaced Crossbred	HA	Hampshire	RN	Romanov
CA	Canadian Arcott	HS	Hampshire and Suffolk	RO	Romney
CD	California Red	IC	Icelandic	SB	Scottish Blackface
CF	Clun Forest	IF	Ile-de-France	SC	St. Croix (Virgin Island White)
CH	Charolais	JE	Jacob	SH	Shetland
CM	California Variegated Mutant	KA	Karakul	SM	Miniature Southdown
		KT	Katahdin	SO	Soay
CO	Columbia	LE	Leicester	SR	Shropshire
CP	Coopworth	LI	Lincoln	ST	Southdown
CR	Corriedale	ME	Merino	SU	Suffolk
CS	Cormo	MT	Montadale	TA	Targhee
CT	Cotswold	MU	Multiple breeds present	TE	Texel
CV	Cheviot	MX	Mixed breed	TU	Tunis
CX	Columbia Cross	NA	Navajo	TX	Texel Cross
XX	Crossbred	NC	North Country Cheviot	WD	White Dorper
DE	Debouillet	NS	Not specified	WX	Whitefaced Crossbred
DH	Horned Dorset	NT	Natural colored		
DM	Delaine Merino	OT	Other		

Breed Code Guide (cont'd)

Equine Breeds and their Abbreviation Codes

Code	Equine Breed	Code	Equine Breed	Code	Equine Breed
AS	American Saddlebred	HU	Hunter	SI	Shire
AP	Appalosa	MN	Morgan	SN	Standardbred
AB	Arabian	APL	Palomino	SF	Suffolk Punch
BL	Belgian	PE	Percheron	TW	Tennessee Walking
CL	Clydesdale	PN	Pinto	TH	Thoroughbred
HA	Hackney (Horse)	QH	Quarter Horse	WE	Welsh
HK	Hackney (Pony)	SE	Shetland		



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
33 Illinois	74 Texas
34 Michigan	81 Montana
35 Wisconsin	82 Idaho
41 Minnesota	83 Wyoming
42 Iowa	84 Colorado
43 Missouri	85 New Mexico
45 North Dakota	86 Arizona
46 South Dakota	87 Utah
47 Nebraska	88 Nevada
48 Kansas	91 Washington
50 Delaware	92 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 Premises?

- 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 Only	
Date received and by:	Date: _____ By: _____
Premises ID No:	_____

Premises Identification Number Application (Print Legibly)

Business/Farm Account Information

Business/Farm Name: _____

Primary Contact: _____
(Landlord) Last First M.I.

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 preferred method of contact

Business Phone: _____ P Fax Number: _____ P

Cell Phone: _____ P E-mail Address: _____ P

Home Phone: _____ P Other (describe): _____ P

Signature eSignature Required **Date:** _____

Business Type (Check one)

Individual Partnership Incorporated Non-Profit Organization LLC LLP

Operation Type (Check all that apply)

Producer Unit/Farm Exhibition, Zoo Market/Collection Point Port of Entry

Tagging site Veterinary Clinic Non-producer Participant Quarantine Facility

Slaughter Plant Rendering Laboratory/Research Semen Collection/Embryo Transfer

Premises Information

Primary location where livestock resides, if more than one location and animals are managed separately, apply for multiple premises ID's on additional forms

Premises Address: Check if same address as above, **OR** list different address below

911 Street Address

City State Zip County

Premises Name/Description: _____ (ex. "home place" or "feed yard")

Premises Type (Check all that apply)

Producer Unit/Farm Exhibition, Zoo Market/Collection Point Port of Entry

Tagging site Veterinary Clinic Non-producer Participant Quarantine Facility

Slaughter Plant Rendering Laboratory/Research Semen Collection/Embryo Transfer

Species at Premises (Check all that apply)

Bison and/or Cattle: Cow/Calf Dairy Feedlot Seedstock
 Swine: Boar Stud Farrow Farrow/Finish Finish Nursery Seedstock

Poultry: Chickens Ducks Geese Guineas Pheasants Quail Turkeys Other

Goats: Dairy Meat Other (list): _____

Cervids: Elk Whitetail Deer Other (list): _____

Camelids: Alpacas Llamas

Ratites Emu Ostrich

Sheep

Horses

Additional Land Descriptions

Legal Land Description* _____
(Required if no address) Township Range Section

GPS Coordinates* _____
(Optional) Latitude (Decimal degrees) Longitude (Decimal degrees)

Please mail to above address or fax to (515) 281-4282 Ph:
(888) 778-7675 • Email: idals_id@iowaAgriculture.gov •

IOWA DEPARTMENT OF AGRICULTURE AND LAND STEWARDSHIP

Tips on Filling out Health Papers

- In Iowa 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 M** – Used for animals moving intrastate (within the State of Iowa), do not use for out of state movement.
 - **Form O** – Used for animals moving intrastate or out of state, when in doubt use this form.
 - **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.) for **EACH** animal on the certificate.
- 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 health 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>

State Animal Health Officials

<https://iowaagriculture.gov/sites/default/files/animal-industry/pdf/Handbook/SAHO2021.pdf>



InterstateLivestock.com

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

SPECIES		Number in	AREA STATUS				HERD STATUS			INSPECTION DATE	PERMIT NUMBER
<input checked="" type="checkbox"/> Cattle	Shipment	2	<input checked="" type="checkbox"/> Free	<input checked="" type="checkbox"/> Tuberculosis	<input checked="" type="checkbox"/> Free	Certified or Validated Number	Accredited Herd Number	Qualified Free Number	10-1-16	M01480	
<input type="checkbox"/> Swine	Purpose of Movement		Class A	Reciprocity							
<input checked="" type="checkbox"/> Horses	Breeding		Class B	Modified							
<input type="checkbox"/> Sheep	Feeding		Class C	Accredited							
<input type="checkbox"/> Other	Slaughter										
	Exhibition										

IDENTIFICATION TAG or REGISTRY NUMBER	DESCRIPTION OF ANIMALS	AGE	SEX	Breed	Tuberculin (Intradermal)		Brucellosis Test			Other Tests
					INL Date	OBS Date	Date	Lab	Date or Tattoo	
42AAA1234	1 1300# Hereford cow		S	F	HE					RVI
42AAB0014	2 1500# Black Angus cow		H	F	AG					RV2

Sample

OWNER/AGENT STATEMENT (WHERE APPLICABLE): I certify the animals in this statement are those certified to and listed on this certificate. Owner/Agent: <u>Jay Walton</u> Signature: <u>[Signature]</u> Printed Name: <u>Jay Walton</u> Address: <u>123 Happy Trail</u> City, State, Zip: <u>Anytown, IA 23456</u>	CERTIFICATION OF ISSUING VETERINARIAN: I certify, as an accredited veterinarian, that the above described animals have been inspected by me and that they are not showing signs of infectious, contagious and/or communicable diseases, (except where noted). The vaccinations and results of tests are as indicated on the certificate. To the best of my knowledge the animals listed on this certificate meet the state of destination and federal interstate requirements. No further warranty is made or implied.	Vets Accreditation Code: <u>14265</u> Date: <u>10-10-16</u> Accredited Veterinarian Signature: <u>[Signature]</u> Printed Name: <u>James Doolittle, DVM</u> Address: <u>4444 Bovine Dr.</u> City, State, Zip: <u>Cowchip IA 52400</u> Telephone No.: <u>555-887-5301</u>
---	--	---

008-0050 (REV. 10/07) Pink: Accompany Shipment Yellow & White: To State Office Green: Issuing Veterinarian

State copy (yellow & white) must be mailed to the IDALS office within 7 days of issuance to the client*

Iowa Health Requirements Governing the Admission Of Animals:
<https://iowaagriculture.gov/animal-industry-bureau/animal-admission-health-requirements>

Form DC-Certificate of Veterinary Inspection for Cats/Dogs

Interstate Shipment <input checked="" type="checkbox"/> Exhibition <input type="checkbox"/> Sale <input type="checkbox"/>	STATE OF IOWA DEPARTMENT OF AGRICULTURE AND LAND STEWARDSHIP Bureau of Animal Industry <u>Certificate of Veterinary Inspection for Cats /Dogs</u>	DC 507857 SHIP VIA: Air <input type="checkbox"/> Auto <input checked="" type="checkbox"/> Rail <input type="checkbox"/> Ship <input type="checkbox"/>
Owner or Consignor <u>John Doe</u>	Consignee <u>Jane Roe</u>	
Address <u>123 Canine Ave.</u>	Address <u>111 Feline Lane</u>	
City <u>Anytown, IA 98765</u>	City <u>Anywhere, NE 00001</u>	
Telephone Number <u>555-678-0000</u>	Telephone Number <u>555-234-0000</u>	

DESCRIPTION	BREED / COLOR	SEX	AGE / DOB	TATTOO MICROCHIP NUMBER	RABIES TAG NUMBER	RABIES VACCINE TYPE		MANUFACTURER	SERIAL NUMBER
						<u>1 year</u> <u>Killed</u>	<u>1 year</u> <u>3 year</u>		
Rover	<u>Black Lab</u> <u>Black</u>	<u>M</u>	<u>4-1-12</u>	<u>N/A</u>	<u>087654</u>	<u>ImRab3</u>	<u>9-1-15</u>	<u>Merial</u>	<u>12345</u> <u>987654</u>

REMARKS: _____
 I hereby certify that the animals listed above have been examined by me and found to be free from contagious and infectious diseases to the best of my knowledge. To my knowledge, the animals listed have not been exposed to rabies and have not originated from a rabies quarantine area.

Signature of Licensed Veterinarian <u>Jim Herriot, DVM</u>	Iowa Vet License # <u>0002</u>
Typed or Printed Name <u>Jim Herriot</u>	Date Issued <u>6/30/2014</u>
Name of Veterinary Hospital/Clinic <u>All Creatures Clinic</u>	Telephone Number <u>515-777-3333</u>
Address <u>1910 Adams St.</u> City <u>Cowtown</u> State <u>IA</u> Zip Code <u>54321</u>	

Original (Pink) copy to accompany shipment. Mail two copies (Canary & Green) to the State Veterinarian. Retain last copy (Green) unless required for air shipment. 009-0127 (Rev. 02/10)

****State copy (canary) must be mailed to the IDALS office within 30 days of issuance to the client****

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
 Bill Northey
 Secretary of Agriculture



Jim Suffolk Seller 1313 Mockingbird Lane Address
Des Moines, IA City Polk County

Market

Official Ear Tag Tattoo or Reg. Ear Notch <i>scrapie ID</i>	<input type="checkbox"/> Cattle <input type="checkbox"/> Swine <input checked="" type="checkbox"/> Other Description or Breed	A G E	S E X	Testing Information			Other
				Lab		Date	Date
				PRV	BAPA Card		
IA 1415 0105	Suffolk	6m	F				
MO 1216 1430	Suffolk x	8m	F				
MN 1010 0115	Hamp	1yr	M				

Cattle sold on private test to be held apart from other breeding cattle until laboratory confirmation 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: _____
Bob Dorset Purchaser 123 Hampshire Ave.
Prescott, IA City Adams County

I certify, as an accredited veterinarian, that the above described animals have been inspected by me and that they are not showing any signs of infections, contagious, and/or communicable diseases (except where noted). Inspection valid within 30 days from date of signature below.

Date 11-5-16 James Merino, DVM
 Signature of Veterinarian

009-0549/Form-M (Rev 7/07) WHITE - ACCOMPANY SHIPMENT YELLOW - VETERINARIAN PINK - IDALS

This form does not need to be sent into the IDALS office



OWNER-SHIPPER STATEMENT (OSS)

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

This document should be used when no other Transportation certificate (For example Certificate of Veterinary Inspection) is required as specified in Iowa Code section 163 and 172B.3 and Iowa Administrative Rules Chapter 66.

Form with fields for: Address animals moved from, 911 Address, City, State, Zip, Owner name, Driver's license number, Owner mailing address, Shipper name, Driver's name and Driver's license number, Vehicle registration plate number, State of issuance, Vehicle Seal Number if any, Shipper address, Species and number of each and description (breed, sex, age, brands if any), Cattle, Goats, Sheep, Swine, Horses, Other, Date livestock loaded, Signature, Owner, Shipper, Date, Destination (Livestock Market, Slaughter plant, Tagging Site or Buying Station Name, Purchaser or Consignee), 911 Address, City, State, Zip.

- Animals are being shipped directly to an approved tagging site for ID.
Directly to Slaughter
Official ID for each animal in the shipment as required in 9 CFR is recorded below.

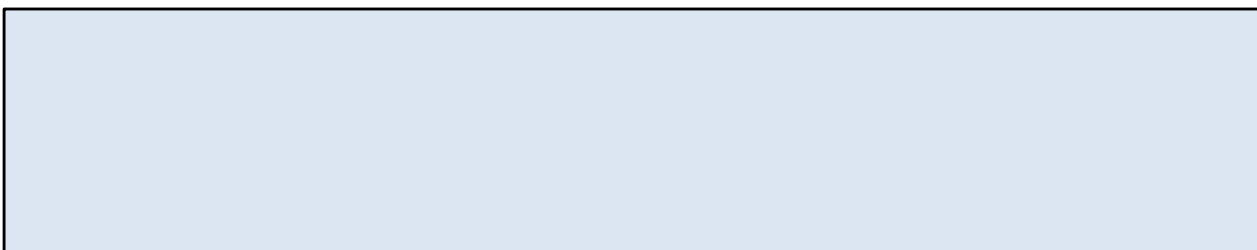
Certificate of Veterinary Inspection Number (if required) State issued

Table with 4 columns and 5 rows for animal identification numbers.

Please indicate species by C -cattle, G - goats, SH - sheep, SW -swine, H - horse, O - other
*A separate listing of official animal identification numbers may be attached to this form.

This is not an Interstate Certificate of Veterinary Inspection

VSPS-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 data-entry 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 ELECTRONICALLY 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:

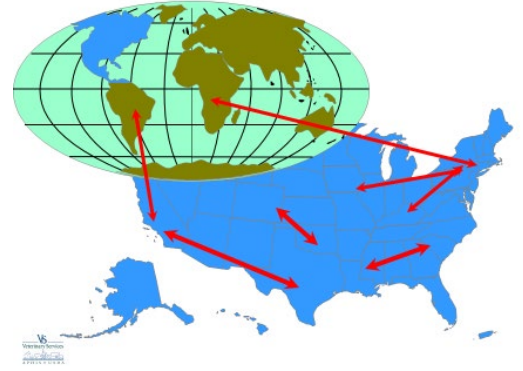
https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/nvap/ct_vsps_interstate_library

VSPS User Manual

<https://iowaagriculture.gov/sites/default/files/animal-industry/pdf/Handbook/VSPSUserManual.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 Export Trade Services Office in Madison, WI (608) 662-0630 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 export health certificates.
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 USDA, APHIS, Veterinary Export Trade Services Office in Madison, WI.
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 prevent the spread of disease internationally.

Imports- 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.



User Fees - are in effect for most imports. People interested in importing animals or animal products should contact USDA, APHIS, Veterinary Services for specific requirements and fees.

<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.

[USDA Service Center Locator](#)

APHIS Pet Travel Website

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



Bringing Pet Birds Back into the USA

https://www.aphis.usda.gov/publications/animal_health/fs-bringing-pet-birds-back-to-the-us.pdf

Veterinary Export Health Certification System (VEHCS)

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

APHIS IRegs-Livestock International 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 USDA APHIS Veterinary Services?

Exporters looking to ship animals or animal products outside of the United States from Iowa should use the Wisconsin Service Center for endorsement.

There are two options for having the certificate endorsed:

- Mail the documents to the office (instructions below)
- Call and schedule an appointment; in-person endorsement is available by appointment only

Endorsement services offered via FedEx/UPS/US Mail to this address:

USDA APHIS VS, Veterinary Export Trade Services
1111 Deming Way, Suite 100
Madison, WI 53717

(608)-662-0630

VSPSWI@usda.gov

Include the following items when mailing/coming in for endorsement:

- **ORIGINAL** health certificate or document. The health certificate MUST be completed, signed, and dated by a USDA accredited veterinarian
- Rabies vaccination certificate
- Import permit and test results (if required by importing country)
- Payment for endorsement services
 - Payment types accepted: User fee account, check, money order, credit/debit card
 - [More information about User fees-Charges for Health Certificate Endorsement](#)

- Prepaid, pre-addressed return shipping label (FedEx, UPS, USPS)
 - The “TO” and “FROM” name/address should be your own (client or accredited veterinarian address) Return shipping labels that contain a USDA address may be rejected. **Not required for documents submitted for endorsement in-person**
- Mailed packages take 1-3 days to endorse
- Overnight the package using a service provider that uses a tracking number feature like 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.



Save TIME & MONEY by submitting international health certificates *ONLINE!*

Electronic certificate submission is available **NOW through the Veterinary Export Health Certification System (VEHCS)***

VEHCS allows USDA-accredited veterinarians to electronically sign and submit export health certificates and supporting documentation to their local APHIS Veterinary Services (VS) Endorsement Offices for review and USDA endorsement. Once finalized, the hardcopy certificate will be returned by mail or made available electronically, depending on the destination country.

Advantages:

- ✓ **Easy registration:** Accredited veterinarians can create a VEHCS user account and gain e-authentication capabilities with their existing national accreditation number (NAN). Just follow the directions on the “New to this site?” link under the Log In button.
- ✓ **Multiple user roles available:** USDA-accredited veterinarians, their support and administrative staff, exporters, and animal shippers, can create accounts within VEHCS and input health certificate information for the accredited veterinarian’s signature and submission.
- ✓ **Transmit certificates:** Depending on the requirements, accredited veterinarians can create health certificates directly in the system or upload a scanned paper certificate to submit for APHIS review and endorsement.*

- ✓ **Reduced turn-around time:** With an electronic submission, there’s no more waiting for paper documents to be delivered to the VS Endorsement Office. Customers can expect to receive their USDA-endorsed certificates in less time than with traditional mail-in endorsement and eliminate time spent sitting in the VS Endorsement Office waiting room.
- ✓ **Reduced cost:** Save money by eliminating the cost of shipping fees (Ex: FedEx or UPS), or the need to drive to the nearest VS Endorsement Office.
- ✓ **Improved communication:** VS Endorsement Offices can return documents to accredited veterinarians electronically for any corrections or edits. Changes can be made to the health certificates without requiring owners to return to the clinic or needing to create a completely new certificate.
- ✓ **IT support for VEHCS users:** VEHCS has dedicated customer service and technical support available for questions or troubleshooting.

Accredited veterinarians:

[Click here to access or register your account with the VEHCS system now](#)

Or visit:

<https://pcit.aphis.usda.gov/pcit>

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control numbers for this information collection are 0579-0036 and 0579-0333. The time required to complete this information collection is estimated to average .25 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.

No dog, cat, nonhuman primate, or additional kinds or classes of animals designated by USDA regulation shall be delivered to any intermediate handler or carrier for transportation in commerce, unless accompanied by a health certificate executed and issued by a licensed veterinarian (7 U.S.C. 21.43.9; CFR, Subchapter A, Part 2).

OMB APPROVED
0579-0036
0579-0333

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

**UNITED STATES INTERSTATE AND INTERNATIONAL
CERTIFICATE OF HEALTH EXAMINATION
FOR SMALL ANIMALS**

WARNING: Anyone who makes a false, fictitious, or fraudulent statement on this document, or uses such document knowing it to be false, fictitious, or fraudulent may be subject to a fine of not more than \$10,000 or imprisonment of not more than 5 years or both (18 U.S.C. 1001).

1. TYPE OF ANIMAL SHIPPED (select one only)

Dog Cat Other _____
 Nonhuman Primate Ferret Rodent

2. CERTIFICATE NUMBER - OFFICIAL USE ONLY

3. TOTAL NUMBER OF ANIMALS

4. PAGE _____ **of** _____

5. NAME, ADDRESS, AND TELEPHONE NUMBER OF OWNER (CONSIGNOR)

6. NAME, ADDRESS, AND TELEPHONE NUMBER OF RECIPIENT AT DESTINATION (CONSIGNEE)

USDA License/or Registration Number (if applicable)

7. ANIMAL IDENTIFICATION

NAME, AND/OR TATTOO NUMBER OR OTHER IDENTIFICATION	BREED – COMMON OR SCIENTIFIC NAME	AGE	SEX	COLOR OR DISTINCTIVE MARKS OR MICROCHIP						
					(1)	(2)	(3)	(4)	(5)	(6)

8. PERTINENT VACCINATION, TREATMENT, AND TESTING HISTORY

RABIES VACCINATION		OTHER VACCINATIONS, TREATMENT, AND/OR TESTS AND RESULTS	
<input type="checkbox"/> 1 YEAR <input type="checkbox"/> 2 YEARS <input type="checkbox"/> 3 YEARS			
Vaccination Date	Product	Date	Product Type and/or Results

9. REMARKS OR ADDITIONAL CERTIFICATION STATEMENTS (WHEN REQUIRED)

VETERINARY CERTIFICATION: I certify that the animals described in box 7 have been examined by me this date, that the information provided in box 8 is true and accurate to the best of my knowledge, and that the following findings have been made ("X" applicable statements).

- I have verified the presence of the microchip, if a microchip is listed in box 7.
- I certify that the animal(s) described above and on continuation sheet(s), if applicable, have been inspected by me on this date and appear to be free of any infectious or contagious diseases and to the best of my knowledge, exposure thereto, which would endanger the animal or other animals or would endanger public health.
- To my knowledge, the animal(s) described above and on continuation sheet(s) if applicable, originated from an area not quarantined for rabies and has/have not been exposed to rabies.

ENDORSEMENT FOR INTERNATIONAL EXPORT (IF NEEDED)
PRINTED NAME OF USDA VETERINARIAN

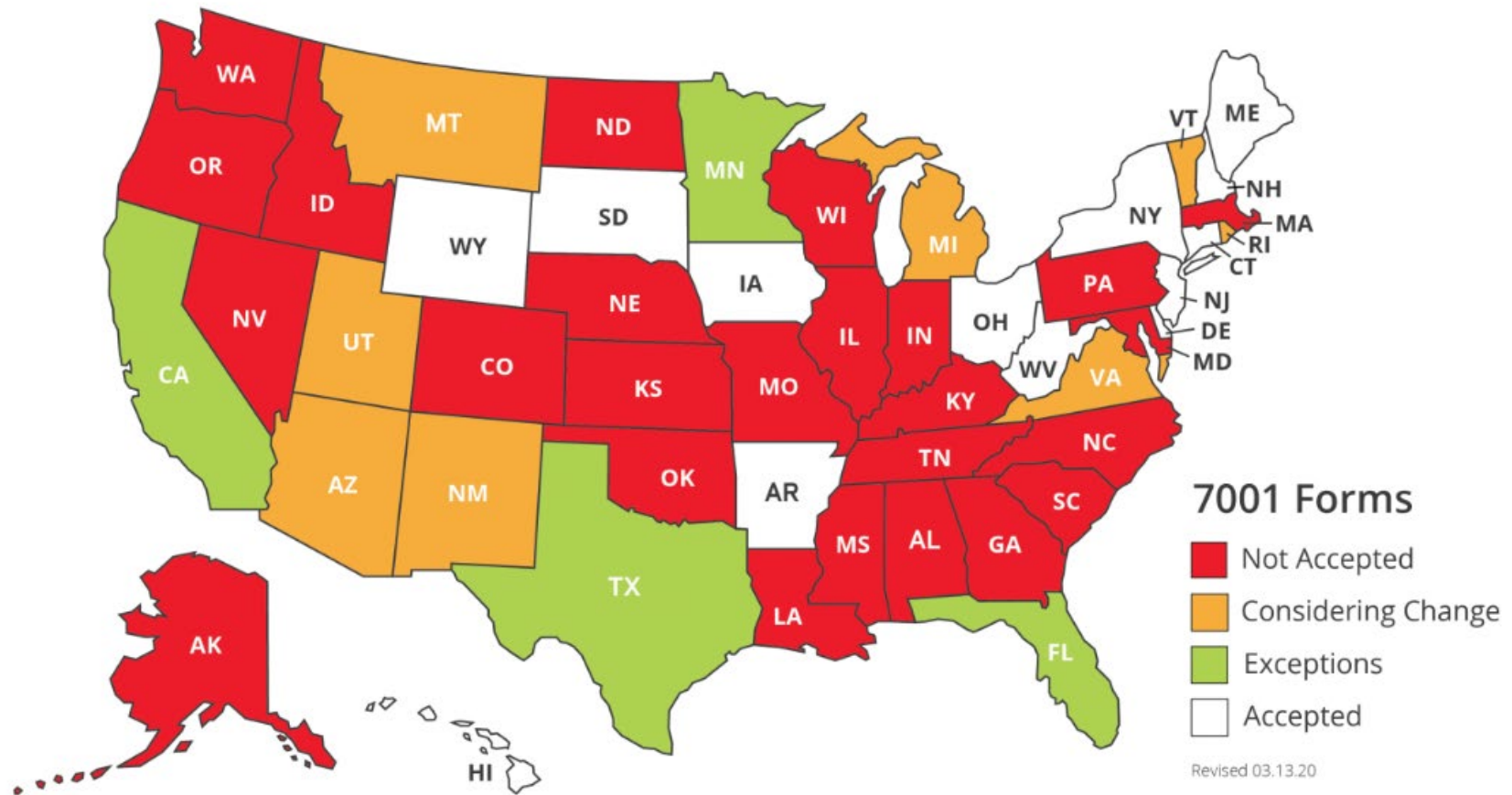
NAME, ADDRESS, AND TELEPHONE NUMBER OF ISSUING VETERINARIAN	LICENSE NUMBER AND STATE
	Accredited <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, please complete below
	NATIONAL ACCREDITATION NUMBER

NOTE: International shipments may require certification by an accredited veterinarian.

SIGNATURE OF USDA VETERINARIAN *Apply USDA Seal or Stamp here* _____ DATE _____

SIGNATURE OF ISSUING VETERINARIAN _____ DATE _____

As of March 13, 2020, these states no longer accept APHIS 7001 forms or have their regulations under review for 7001 forms.



<https://www.globalvetlink.com/7001form/>

U.S. DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE
VETERINARY SERVICES

UNITED STATES ORIGIN HEALTH CERTIFICATE

(This document does not replace Certificate of Inspection of Export Animals, VS Form 17-27)

1. CONSIGNOR'S NAME (Last name, first name, middle initial or business name)

2. CERTIFICATE NO. 2

3. PAGE NO. 3

L088967

1 OF

4. DATE ISSUED 4

5. U.S. PORT OF EMBARKATION (City and State) 5

6. STATE CODE 6

7. CONSIGNOR'S STREET ADDRESS (Mailing Address) 7

8. CONSIGNOR'S CITY (or Town) 8

12. CONSIGNOR'S STATE 12

13. STATE CODE 13

14. ZIP CODE 14

9. SEMEN ("X" if yes) 9

10. NO. DOSES OF SEMEN 10

11. TRANSPORTATION CLASS 11

16. CONSIGNEE'S NAME AND STREET ADDRESS (Mailing Address) 16

DESTINATION COUNTRY

ENTER CODE

15. SPECIES ("X" one - use VS Form 17-6 for Poultry)

- 01 BOVINE
- 02 PORCINE
- 03 OVINE
- 04 CAPRINE
- 05 EQUINE
- 08 OTHER WILDLIFE - MAMMAL
- 09 OTHER (Specify)

NEGATIVE TUBERCULIN READING

48 HRS 72 HRS

BRUCELLOSIS BLOOD SAMPLE COLLECTED

NEGATIVE RESULTS OF OTHER TESTS

DISEASE

DISEASE

DISEASE

TYPE TEST

TYPE TEST

TYPE TEST

If more lines are needed below - use VS Form 17-140A.

17. FARM ORIGIN

Owner's name (Last name, two initials, or business name)
Owner's street address
Owner's city/town, State code (FIPS code on reverse) & zip code

MODIFIED ACCREDITED AREA (TB)

18. INDIVIDUAL IDENTIFICATION
(Instructions for columns A, B, C & D on reverse)

ID NO. OR DESCRIPTION
A

AGE
B

SEX
C

BREED
D

E

DATE
F

G

DATE
H

VAC
I

1/25
J

1/50
K

1/100
L

DATE
M

DATE
N

DATE
O

SAMPLE

VALID ONLY IF USDA VETERINARY SEAL APPEARS HERE

CERTIFICATION BY ISSUING VETERINARIAN

This is to certify that the animals identified above were inspected by me on this date and found to be free from evidence of communicable diseases and insofar as can be determined exposure thereto; the premises of origin are not under Federal or State quarantine because of animal disease; the animals were all negative to the tests shown on the dates indicated. Arrangements have been made for the animals to be handled in a transporting vehicle that has been cleaned and disinfected since last used for livestock and for movement to the port of embarkation without exposure to other animals en route, except those meeting these health requirements. The shipment must be accompanied to the port of export with this certificate.

19. DATE ENDORSED 19

20. NAME OF ISSUING VETERINARIAN (Last name, first name, middle initial, please print) 20

21. STATUS 1 State 2 Federal 3 Accredited 21

22. TOTAL NO. OF ANIMALS (Certified for export or donated semen) (Include nos. from all attached VS Forms 17-140A) 22

24. NAME OF ENDORSING FEDERAL VET (Type, print, or stamp) 24

25. SIGNATURE OF ISSUING VETERINARIAN 25

23. Signature of Endorsing Federal Veterinarian

VS Form 17-140 United States Origin Health Certificate

*Livestock traveling internationally must be accompanied by an official health certificate issued by an APHIS representative or an accredited veterinarian at the point of origin. VS Form 17-140 United States Origin Health Certificate is the primary health certificate used for the export of livestock or semen to foreign countries. A pre-movement authorization, known as a **Permit for Entry or Import Permit**, may be required by the destination country before animals can enter the country. Regulations on international movement of livestock can be found at: <http://www.aphis.usda.gov/regulations/vs/iregs/animals/>. These regulations can change frequently so the only certain way to meet entry requirements is to call the District Office and confirm the details.*

This document is intended to give general guidance on how to complete VS Form 17-140. Recognize that these are not official directions and forms change over time. If you have any questions regarding how to complete this form, contact your District Office for official guidance.

- 1. CONSIGNOR'S NAME:** Last name, first name, and middle initial of consignor, which may or may not be the owner.
- 2. CERTIFICATE NO.:** The certificate number is imprinted on the certificate. All copies of the certificate shall carry the same unaltered certificate no. Insert this certificate number on all VS Form 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 Form 17-140A would be numbered: "Page 1 of 3; Page 2 of 3; and Page 3 of 3")
- 4. DATE ISSUED:** 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):** 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:** State of the port of embarkation using the two-letter United States Postal Service (USPS) state code.
- 7. CONSIGNOR'S STREET ADDRESS (Mailing Address):** Mailing address of the consignor.
- 8. CONSIGNOR'S CITY:** City/Town 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:** 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:** State of consignor's mailing address.
- 13. STATE CODE:** The two-letter United States Postal Service (USPS) state code from the state of the consignor's mailing address.
- 14. ZIP CODE:** Zip code of the consignor's mailing address.

This information was developed by staff veterinarians at the CFSPH and approved by APHIS for use as training materials for the USDA APHIS National Veterinary Accreditation Program.



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

15. **SPECIES:** A separate certificate must be used for each species.
16. **CONSIGNEE'S NAME AND STREET ADDRESS:** Name and mailing address of consignee.
DESTINATION COUNTRY: Destination country name.
ENTER CODE: The two-letter destination country code if known, otherwise leave blank.
17. **FARM ORIGIN:** 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, tattoos, and registration numbers. Color markings are part of equine and llama identification and need to be listed. For electronic (microchip) identification, the location of where the chip was placed should always be included. Also list the reader device since not all readers read all microchips.
 - B. **AGE:** Indicate age and the 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 breed codes located on back of form.
 - E. **MODIFIED ACCREDITED AREA (TB):** Check the box if the animals originate from a TB Modified Accredited Area. *(Check the status through the State Animal Health Official's Office of the state of origin).*
 - F. **DATE:** 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 animals originate from a Certified Brucellosis Free Area. *(Check the status through the State Animal Health Official's Office of the state of origin).*
 - H. **DATE:** Date the blood sample was drawn from the animal.
 - I. **VAC:** Use official vaccinates "OV" or vaccination date when required by country of destination.

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

TYPE TEST: 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: Date the sample was collected from the animal for the above test type.

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

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

19. **DATE ENDORSED:** Date the federal veterinarian endorsed the certificate. This will be completed by the federal veterinarian.
20. **NAME OF ISSUING VETERINARIAN:** Print last name, first name, and middle initial of the accredited veterinarian who is issuing (signing) this form.
21. **STATUS:** As an accredited veterinarian, check the Accredited box.

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

- 22. TOTAL NO OF ANIMALS:** Total number of animals certified for export or donated semen. Include numbers from all attached VS Forms 17-140A.
- 23. SIGNATURE OF ENDORSING FEDERAL VETERINARIAN:** Signature of a federal veterinarian. In some instances, a USDA Official Veterinary Seal may be mandatory for the certificate to be complete.
- 24. NAME OF ENDORSING FEDERAL VET:** Printed name of the federal veterinarian signing box 23. This will be filled out by the federal veterinarian.
- 25. SIGNATURE OF ISSUING VETERINARIAN:** Signature of the veterinarian who is issuing this form. It must be the veterinarian whose name was printed in box 20.

If more space is needed when filling out 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 completed in the main form.

NOTE: The Certificate number from 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. If using three pages for the export, the two continuation sheets should be numbered “Page 2 of 3” and “Page 3 of 3”.



General Office Forms

FORM #	DESCRIPTION	QUANTITY
VS 6-22	TUBERCULOSIS TEST RECORD – 50/PKG.....	_____
VS 6-22B	TUBERCULOSIS TEST RECORD CONTINUATION – 50/PKG.....	_____
VS 1-27	INTERSTATE MOVEMENT OF REACTOR ANIMALS – 25/FORMS & ENVELOPES...	_____
VS 4-26	BRUCELLOSIS CALF HOOD VACCINATION RECORD (LONG) – 100/PKG.....	_____
VS 4-33	BRUCELLOSIS TEST RECORD – 50/PKG.....	_____
VS 4-33A	BRUCELLOSIS TEST RECORD CONTINUATION – 50/PKG.....	_____
VS 4-54	BRUCELLOSIS MARKET CATTLE TESTING PROGRAM – 100/PKG.....	_____
VS 10-11	EQUINE INFECTIOUS ANEMIA LABORATORY TEST REPORT - 50/PKG.....	_____

United States
Department of
Agriculture

Animal and Plant
Health Inspection
Service

Veterinary Services

Iowa District Office
Neal Smith Federal
Bldg,
210 Walnut St
R o o m 8 9 1
Des Moines IA
50309

Phone: 515-284-4140
Fax: 515-323-2108

Seals/Shields

CUP SEALS.....	_____
WIRES.....	_____
BALL SEALS.....	_____
"V" SHIELDS (VET. CLINIC MUST RETURN OLD SHIELD).....	_____

Tuberculin is now ordered direct from NVSL

Jaci Weese
515-337-7181

Teresa Sigafoose-Grimm
515-337-7317
theresa.m.sigafoose@usda.gov

Request for Reagents or Supplies

https://iowaagriculture.gov/sites/default/files/animal-industry/pdf/Handbook/VS_Form4_9.pdf

Supplemental Tuberculin Request Form

<https://iowaagriculture.gov/sites/default/files/animal-industry/pdf/Handbook/SupplementalTuberculinRequestForm.pdf>

Completed
order forms can
be faxed to
515-323-2108 or
emailed to
[vs.iowa.admin@
usda.gov](mailto:vs.iowa.admin@usda.gov)

ACCREDITED VETERINARIAN: _____

ACCREDITATION NUMBER: _____

CLINIC NAME: _____

UPS ADDRESS: _____

CITY/STATE/ZIP: _____

PHONE (EMAIL ADDRESS optional): _____

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

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:

<https://iowaagriculture.gov/sites/default/files/animal-industry/pdf/Handbook/9CFR-EIA.pdf>

Current List of Approved EIA Labs

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



UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE
EQUINE INFECTIOUS ANEMIA TEST FORM

FORM SERIAL NUMBER
AA 635950

COMPLETION OF ALL UNSHADED NUMBERED FIELDS IS REQUIRED FOR SUBMISSION, IF NONE WRITE "NONE" AND TYPE OR PRINT LEGIBLY.

1. LABORATORY ACCESSION NUMBER (for laboratory use only)		2. DATE BLOOD DRAWN		3. TEST REQUESTED BY VETERINARIAN <input type="checkbox"/> ELISA <input type="checkbox"/> AGID	
4. REASON FOR TESTING <input type="checkbox"/> Interstate Movement <input type="checkbox"/> Within State Use/Annual <input type="checkbox"/> Change Ownership/Sale <input type="checkbox"/> International Import/Export <input type="checkbox"/> Illness/Clinical Suspect <input type="checkbox"/> Investigation/Exposure					
5. LOCATION OF EQUINE AT BLOOD DRAW (ranch, farm, stable, or market) 5a. NAME			7. NAME AND ADDRESS OF OWNER 7a. NAME		
5b. PHYSICAL/STREET ADDRESS			7b. MAILING ADDRESS		
5c. CITY, STATE, ZIP CODE			7c. CITY, STATE, ZIP CODE		
5d. TELEPHONE NUMBER		6. COUNTY OF EQUINE AT BLOOD DRAW		7d. TELEPHONE NUMBER	

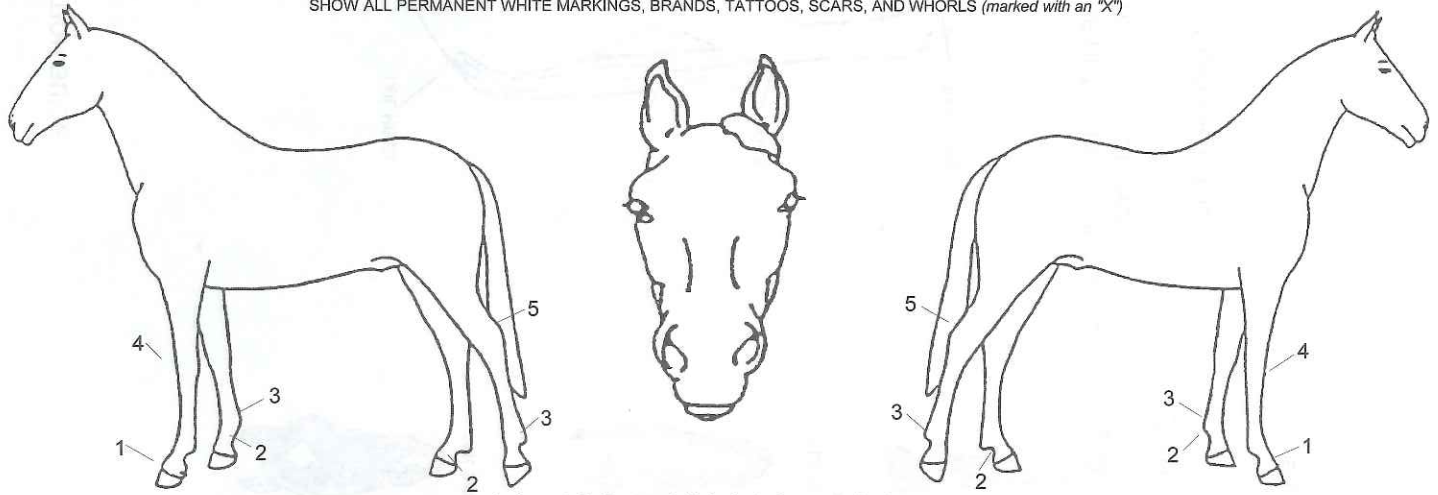
I CERTIFY I AM A CATEGORY II FEDERALLY ACCREDITED VETERINARIAN, AUTHORIZED IN THE STATE WHERE THE SAMPLE WAS OBTAINED, BY ME, FROM THE ANIMAL DESCRIBED BELOW.

8. ACCREDITED VETERINARIAN 8a. VETERINARIAN NAME		8b. NATIONAL ACCREDITATION NUMBER		8c. VETERINARIAN SIGNATURE		8d. SIGNATURE DATE	
8e. PHYSICAL/STREET ADDRESS OF VETERINARIAN			8f. CITY, STATE, ZIP CODE			8g. TELEPHONE NUMBER	

9. Tube Number	10. Tag/Tattoo/Brand Number	11. Name of Animal	12. Color	13. Breed (or species if not a horse)	14. Age or DOB	15. Sex	M - Male Intact F - Female Intact G - Gelding FS - Female Spayed

16. MICROCHIP, BREED, OR REGISTRATION NUMBER

SHOW ALL PERMANENT WHITE MARKINGS, BRANDS, TATTOOS, SCARS, AND WHORLS (marked with an "X")



1 - Coronet, 2 - Pastern, 3 - Fetlock, 4 - Carpus, 5 - Hock

REQUIRED: NARRATIVE DESCRIPTION OF PERMANENT WHITE MARKINGS, BRANDS, TATTOOS, SCARS, AND WHORLS. (If none write none) Suggested nomenclature includes Heel, Heels, Coronet(1); Half Pastern, Pastern(2); Fetlock(3); Half Canon, Canon, Carpus/Hock(4/5) above Carpus/Hock

17. HEAD	18. NECK AND BODY (include coat color patterns, if any)
19. LEFT FORELIMB	20. RIGHT FORELIMB
21. LEFT HINDLIMB	22. RIGHT HINDLIMB

The narrative description section must have a value notated in each field # 17-22. No field can be left blank. If there is no applicable marking, write "none", "N/A", or draw a slash through that field.

FOR LABORATORY USE ONLY

23. EIA LABORATORY NAME	24. DATE SAMPLE RECEIVED	25. DATE RESULTS REPORTED	26. OFFICIAL TEST RESULT <input type="checkbox"/> Negative <input type="checkbox"/> Positive	27. TEST TYPE USED <input type="checkbox"/> AGID <input type="checkbox"/> ELISA
23a. CITY	28. LABORATORY REMARKS			
23b. STATE	29. SIGNATURE OF NVSL - APPROVED EIA TECHNICIAN		30. INTERIM RESULT REFERRED FOR CONFIRMATION <input type="checkbox"/>	

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 (18 U.S.C. SECTION 1001).

The **NARRATIVE DESCRIPTION OF PERMANENT WHITE MARKINGS, BRANDS, TATTOOS, SCARS, AND WHORLS** is required, regardless of whether photographs or line drawings are submitted.

Suggested nomenclature includes: Heel/s, Coronet, Half Pastern, Pastern, Fetlock, Half Canon, Canon, Carpus/Hock, above Carpus/Hock

Block 1: Accession Numbers **Leave blank.**

Block 2: Date Blood Drawn

Indicate the date the veterinarian obtained the sample from the animal. This is the official test date.

Block 3: Test Requested by Veterinarian

The veterinarian determines which test should be run by the laboratory - based on the reason for the testing.

Block 4: Reason for Testing

If more than one option applies, mark the most compelling reason for performing the test at this time.

Interstate Movement = movement between States.

Within State Use/Annual = movement within a State (intrastate), shows/events, or any annual or routine testing.

Change Ownership/Sale = includes tests run for private sales, markets or auctions whether required by state law or otherwise.

International Import/Export = international movement into or out of the USA.

Illness/Clinical Suspect = diagnostic testing of sick animals.

Investigation/Exposure = official investigations by authorities.

Block 5: Location of current home premises at blood draw

Physical address of the current home premises or residence of the animal. This includes farms, stables or racetracks - where the animal lives at the time the blood is drawn. It may include a market location if the home address is unknown. It should NOT include a temporary location such as a veterinary clinic. DO NOT use a Post Office Box.

Block 6: County of current home premises of equine at blood draw

The county of the equine residence in Box 6.

Block 7: Name and Address of Owner

May be a market or auction.

Block 8a: Veterinarian Name

Name of veterinarian. **DO NOT** enter a practice name.

Block 8b: Veterinarian National Accreditation Number

National Veterinary Accreditation Number of Cat II accredited veterinarian who drew the blood sample.

Block 8c: Signature

Signature of the accredited veterinarian who drew the blood sample.

Block 8d: Signature Date The date the veterinarian signed the form.

Blocks 8e, f, g.: Veterinarian Street Address, Phone Number

Physical address and phone number of veterinarian.

Block 9: Tube Number If **applicable**, per accredited veterinarian.

Block 10: Tag/Tattoo/Brand Number

Enter all tattoo numbers and brand(s) present and any tag number used for ID. **If none enter NONE.**

Block 11: Name of Animal

If the animal does not have a name **enter NONE** however, a unique identifying number associated with the animal will be required in Block 14 or 20.

Block 12: Color Enter coat or hair color(s). **Block 13:** Breed of Horse or Species

Enter the horse's breed(s). If equid is not a horse enter the species. Ex: donkey, mule, hinny or zebra.

Block 14: Age or DOB

Record the animal's age (XX) in years (Y); use months (M) if less than one year (Example: **01Y** or **12M**), or indicate the date of birth: **MM/DD/YYYY.**

Block 15: Sex Use abbreviations in the box to the right; indicate sex.

Block 16: Microchip, Breed, or Registration Number Enter the microchip number, and/or breed registration number or other ID number. **If none enter NONE.**

Silhouette/Line drawing

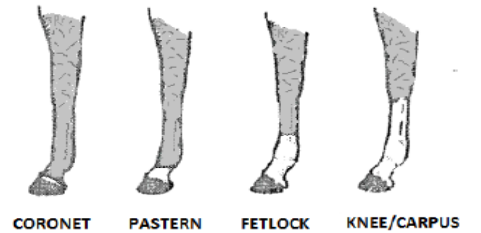
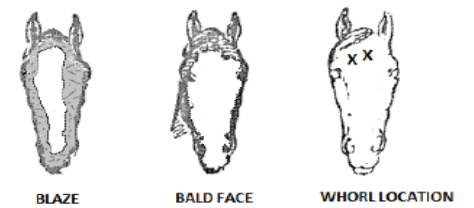
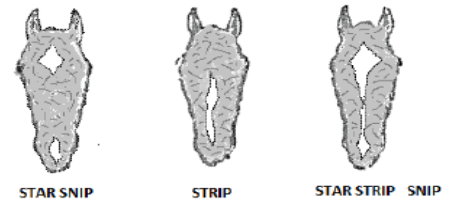
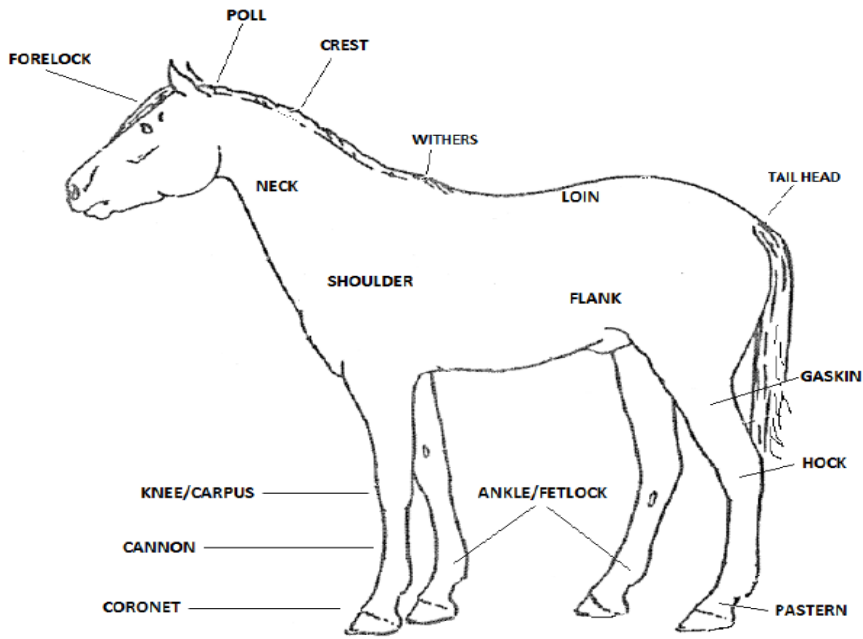
Instructions: This section, while not required, complements the required narrative descriptions in Blocks 21 – 26. Show, draw or otherwise represent all permanent white markings, brands, tattoos, and scars. Mark whorls with an X. The animal should be uniquely identified. Non-descript animals require greater detail; use whorls and scars to properly identify the animal. Detailed brands can be drawn.

Blocks 17 - 22: Head, Neck & Body, Left Fore-limb, Right Fore-limb, Left Hind-limb, Right Hind-limb.

The narrative **description is required**; indicate all permanent white markings, brands, tattoos, scars, & whorls. Blank blocks are not acceptable - **if none enter NONE.** The animal should be uniquely identified. Non-descript animals require greater detail; use whorls and scars to properly identify. For the head suggested nomenclature includes any combination of star, strip, snip, lip, chin, blaze, bald; modified by "connected" if applicable. For limb markings describe the most proximal extent of the white area. Suggested nomenclature includes none, heel, heels, coronet, half pastern, pastern, fetlock, half canon, canon, carpus/hock, above carpus/hock.

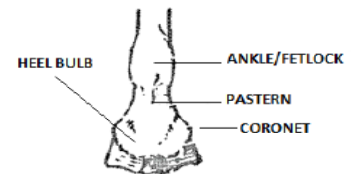
Blocks 23 - 30: For Laboratory Use Only: **Leave blank.**

EQUINE DESCRIPTION GUIDE



IN GENERAL, THE MORE NON-DESCRIPT THE ANIMAL THE MORE DETAIL IS REQUIRED TO UNIQUELY AND PROPERLY IDENTIFY THE ANIMAL. DESCRIBE, DRAW OR INDICATE ALL WHORLS, SCARS, BRANDS OR MARKS.

ON THE LIMBS, DESCRIBE, DRAW OR INDICATE THE MOST PROXIMAL ANATOMIC EXTENT OF THE WHITE MARKINGS.





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 35-45oF; 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 pre-filled, 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 (official ear tag), *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

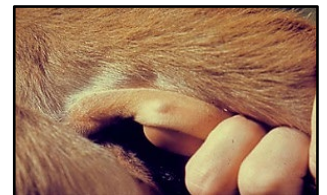
3. Caudal Fold Test (CFT) Injection

- **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

- Cattle & cervids: 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), or collect blood for a gamma test (optimally within 3-7 days of CFT injection); 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 50309

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 tuberculin 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. In cattle or cervids, 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) and Axillary test in camelidae. 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.

Tuberculin is now ordered direct from the NVSL

Request for Reagents or Supplies

https://iowaagriculture.gov/sites/default/files/animal-industry/pdf/Handbook/VS_Form4_9.pdf

Supplemental Tuberculin Request Form

<https://iowaagriculture.gov/sites/default/files/animal-industry/pdf/Handbook/SupplementalTuberculinRequestForm.pdf>

Email Completed forms to: NVSL_concerns@usda.gov

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not 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 0579-0146. The time required to complete this information collection is estimated to average .3 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.

OMB Approved
0579-0146
EXP. 01/2020

**UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE
VETERINARY SERVICES**

**COOPERATIVE STATE - FEDERAL TUBERCULOSIS
ERADICATION PROGRAM
TUBERCULOSIS TEST RECORD**

ALL INCOMPLETE RECORDS WILL BE RETURNED FOR COMPLETION

STATE 1			HERD OWNER - LAST NAME, FIRST MI 3			K						
COUNTY	TWP	SEC	HERD OWNER COMPLETE ADDRESS 3			PREVIOUS TEST DATE	VET CODE	TOTAL	REA	SUS		
HERD NUMBER						LESION			CERTIFICATION FOR PAYMENT <input type="checkbox"/> STATE/FEDERAL EXPENSE <input type="checkbox"/> OWNER EXPENSE			DATE LISTED
COUNTY 2	TOWNSHIP OR DISTRICT		SECTION		FARM NUMBER				I certify that this test was made and read by me on each of the cattle identified below on the dates and with the results as entered in appropriate spaces, and that when payment is claimed at program expense in accordance with agreement number below, no payment has been or will be received from any other source.			
REASON FOR TEST 4			COMPLETE HERD TEST OF ALL ELIGIBLE ANIMALS			SUMMARY 8			PRACTITIONER SIGNATURE 9		TELEPHONE	
AREA 1		RETEST 6	<input type="checkbox"/> YES <input type="checkbox"/> NO 5 NO. ELIGIBLE ANIMALS IN HERD: _____			NEGATIVE			PRACTITIONER NAME (print) 9		AGREE CODE 10	
HERD (RE)ACCREDIT 2		TRACING REG. KILL 7	KIND OF HERD 6 <input type="checkbox"/> DEER <input type="checkbox"/> BISON <input type="checkbox"/> ELK <input type="checkbox"/> OTHER <input type="checkbox"/> CATTLE			SUSPECT			INJECTION 11		DATE	HOUR
MILK ORDINANCE 3		TRACING REACTORS 8	METHOD OF TEST 7 <input type="checkbox"/> CAUDAL FOLD (CFT) <input type="checkbox"/> SNG CERVICAL (SCT) (CERVID) <input type="checkbox"/> CERVICAL (CT) (BOVINE) <input type="checkbox"/> OTHER			REACTOR			OBSERVATION 12		DATE	HOUR
SALE SHOW 4		TRACING EXPOSED 9				TOTAL			TUBERCULIN SERIAL NUMBER			
IMPORTED 5		OTHER 10										

1	OFFICIAL IDENTIFICATION NUMBER	AGE	BREED	SEX	RESULTS		1	OFFICIAL IDENTIFICATION NUMBER	AGE	BREED	SEX	RESULTS	
					SIZE	NRS						SIZE	NRS
	1. 13	14	15	16	17			13.					
	2.							14.					
	3.							15.					
	4.							16.					
	5.							17.					
	6.							18.					
	7.							19.					
	8.							20.					
	9.							21.					
	10.							22.					
	11.							23.					
	12.							24.					

↑ RT - Retag NA - Natural Addition PA - Purchased Addition	↑ N - Negative R - Reactor S - Suspect	I hereby acknowledge receiving a copy of this record which I have examined and find correct. OWNER SIGNATURE 18	DATE	THIS AUTHORIZATION TO TEST EXPIRES:
---	---	---	------	-------------------------------------

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:** Iowa, 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 testeligible 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. **PRACTITIONER' 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. For cattle and cervids, 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. 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.

Fillable VS 6-22 Tuberculosis Test Record

<https://www.aphis.usda.gov/library/forms/pdf/vs-6-22.pdf>

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 (see below). Once the required documents have been read, the AV needs to contact their local State District Veterinarian (SDV) or Federal Veterinary Medical Officer (VMO), discuss the program, sign the DAV application, and email it to their SDV/VMO. Once the application 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”. This can either be submitted in the form of an Excel file, Word file, or submitting fully electronically through the NCAH Portal available at <https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/lab-info-services/portal> . A 10-4 must still accompany all submissions. If sending an electronic file, please send ahead of the sample shipment to VS.DB.NVSL.DBRL.Sero.Mgmt@usda.gov .

Please contact USDA APHIS VS office at (515) 284-4140 with questions.

DPP Training Documents

Cervid DPP Frequently Asked Questions

<https://iowaagriculture.gov/sites/default/files/animal-industry/pdf/Handbook/CervidFAQ.pdf>

Cervid TB Diagnostics

<https://iowaagriculture.gov/sites/default/files/animal-industry/pdf/Handbook/CervidTBDiagnostics.pdf>

VS Guidance Document 6701.4 DPP Testing

https://www.aphis.usda.gov/animal_health/animal_diseases/tuberculosis/downloads/vsg6701.4-primary-secondary-serological-test-for-tb.pdf

Dual Path Platform (DPP) Submission Policy

<https://iowaagriculture.gov/sites/default/files/animal-industry/pdf/Handbook/DPPSubmissionPolicy.pdf>

Application for Designated Accredited Veterinarian (DAV)

<https://iowaagriculture.gov/sites/default/files/animal-industry/pdf/Handbook/DAVAPPLICATION.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)

<https://iowaagriculture.gov/sites/default/files/animal-industry/pdf/Handbook/BovineTuberculosis2005UM&R.pdf>



1999 Bovine TB UMR (Cervid section valid)

<https://iowaagriculture.gov/sites/default/files/animal-industry/pdf/Handbook/BovineTuberculosis1999UM&R.pdf>

9CFR

<https://iowaagriculture.gov/sites/default/files/animal-industry/pdf/Handbook/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-Iowa 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, or "840" RFID tag
 - 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.

R  2

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 vacutainer 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.

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 number. The valid OMB control numbers for this information collection are 0579-0047 and 0579-0185. The time required to complete this collection of information is estimated to average .16 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.

OMB Approved
0579-0047 and 0579-0185

STATE **1** **ALL INCOMPLETE RECORDS WILL BE RETURNED FOR COMPLETION**
 COUNTY **2** CODE **COOPERATIVE STATE-FEDERAL BRUCELLOSIS ERADICATION PROGRAM**

BRUCELLOSIS TEST RECORD

HERD NUMBER HERD OWNER (LAST NAME, FIRST NAME, MI) **3** PREVIOUS TEST DATE VET CODE TOTAL REA SUS
 PREMISES ID NUMBER ROUTE-STREET-ROAD CERTIFICATION FOR PAYMENT
 FEDERAL EMPLOYEE FEE BASIS (Federal) STATE COUNTY PRIVATE (Owner's expense) **8**
 POST OFFICE STATE ZIP CODE

4 REASON FOR TEST INITIAL RETEST GPS COORDINATES
 Slaughter Rea 1 Hd. Cert/ Validation 6
 COMPLETE HERD TEST OF ALL ELIGIBLE ANIMALS
 YES NO NO. IN HERD **5**
 Lvt. Mkt. Rea 2 Post Move Quar. Test 7
 Susp. Ring Test 3 Area Test 8
 Diagnostic 4 Epidemiology 9
 Kind of Herd **6**
 DAIRY BEEF MIXED
 SWINE OTHER (Specify below)
 Pvt. Sale 5 Other (Specify below) 10

I CERTIFY:
 That I have drawn blood samples from each animal identified below and have correctly listed each tube number with corresponding identification number, all numbers and letters of all eartags have been listed, cattle with existing official eartags have not been retagged, and when payment is claimed at program expense in accordance with agreement number below, no payment has been or will be received from any other source.

SIGNATURE **9** AGREE CODE **10**
 ROUTE-STREET-ROAD DATE BLED **11**
 POST OFFICE STATE ZIP CODE FIELD TEST DONE BY:
 REACTORS TAGGED AND BRANDED DATE: SIGNATURE: AGREE CODE

REMARKS LABORATORY PLACE DATE Rec'd TOTAL

DATE TESTED		BY:											LABORATORY RESULTS				TEST IN-TERP	REMARKS AND ADDITIONAL INFORMATION	REACTOR TAG NUMBER
TUBE NUMBER	2	RECORD ALL IDENTIFICATION NUMBER(S)	VACC TATTOO	AGE	BREED	SEX	RAP	BAPA	CARD	FPA Δmp	CF	OTHER	19	20	21				
12	13	14	15	16	17	18													

RT - Retag
 NA - Natural Addition
 PA - Purchased Addition
 AB - Aborter

Record ALL Eartag(s) and Tattoo(s)

Record ALL Legible Characters

FIELD TEST CODE
 N - Negative
 P - Positive

TEST INTERPRETATION
 N - Negative
 S - Suspect
 R - Reactor
 Classified By/Date
 By: _____
 Date: _____

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. PRACTITIONER'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.

Fillable Brucellosis Test Record

https://www.aphis.usda.gov/library/forms/pdf/VS_4_33.pdf

STATE 1	ALL VACCINATIONS MUST BE PROMPTLY REPORTED COOPERATIVE STATE-FEDERAL BRUCELLOSIS ERADICATION PROGRAM		UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE VETERINARY SERVICES	
COUNTY 2	CODE	BRUCELLOSIS VACCINATION RECORD		
HERD NUMBER	HERD OWNER (LAST NAME, FIRST NAME, MI) 3		VACCINE MFG AND STRAIN 4	DOSAGE 7 <input type="checkbox"/> FULL <input type="checkbox"/> REDUCED
PREMISES ID NUMBER	ROUTE-STREET-ROAD		SERIAL NUMBER/EXPIRATION DATE 5 & 6	VACCINATION TATTOO 8
KIND OF HERD 9 <input type="checkbox"/> DAIRY <input type="checkbox"/> BEEF <input type="checkbox"/> BISON	POST OFFICE	STATE	ZIP CODE	
REMARKS		GPS COORDINATES		CERTIFICATION FOR PAYMENT <input type="checkbox"/> FEDERAL EMPLOYEE <input type="checkbox"/> FEE BASIS (Federal) <input type="checkbox"/> STATE COUNTY <input type="checkbox"/> PRIVATE (Owner's Expense)
10 CV <input type="checkbox"/> AV <input type="checkbox"/>				I CERTIFY THAT: (1) I have vaccinated with an approved vaccine; officially tattooed and eartagged, or otherwise officially, individually identified all animals listed hereon as prescribed by the Brucellosis UM and R, and recorded all information as prescribed by State regulations; and (2) when payment is claimed at the program's expense

in accordance with the agreement number below, no payment has been or will be received from any other source. 11

NO.	IDENTIFICATION NUMBER	AGE Yr.(s)/Mo.(s)	BREED	SEX	P/B GRADE	* TATTOO	Signature	Date of Vaccination	Agree Code				
1	16	17	18	19	20	21	12	13	14				
2							CERTIFICATION OF OWNER OR WITNESS I CERTIFY THAT the animals listed hereon were vaccinated and identified for the above named owner.						
3							15	Date					
4							CERTIFICATION FOR RE-ESTABLISHING VACCINATION STATUS * <input type="checkbox"/> Indicate tattoo of animals previously vaccinated in appropriate column.						
5							I CERTIFY THAT I have personally examined the animal(s) noted hereon, and have read the official tattoo(s), and have retagged them as shown.						
6							Signature		Date				
7							NO.	IDENTIFICATION NUMBER	AGE Yr.(s)/Mo.(s)	BREED	SEX	P/B GRADE	* TATTOO
8							21						
9							22						
10							23						
11							24						
12							25						
13							26						
14							27						
15							28						
16							29						
17							30						
18							31						
19							32						
20							33						

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 AVIC.
- 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.

Fillable VS Form 4-26 Brucellosis Vaccination Records

https://www.aphis.usda.gov/library/forms/pdf/VS_4_26.pdf

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.pdf

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 started in November 2001 with the goal of eradicating Scrapie in the United States. The US and Iowa are making progress toward this goal. There are several factors essential to success of the NSEP and they are detailed below.



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. In Iowa, sheep are required to have Scrapie tags and goats are required to have Scrapie tags or in some cases, USDA approved Scrapie tattoos before leaving their flocks. The program also relies on producer and market/dealer records, and hence record keeping requirements are also specified. Sheep and goat producers, markets, and dealers can call 1-866-USDA-TAG for information about getting Scrapie tags. Sheep and goat producers will need to call the same number to get a Scrapie Flock ID number. For more information visit the IDALS website at: <https://iowaagriculture.gov/animal-industry-bureau>.

Regulatory Scrapie Slaughter Surveillance (RSSS)

RSSS is a slaughter surveillance program targeting adult sheep and goats where adult sheep or goats are sampled at slaughter and samples are tested for Scrapie. This has been 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. When suspect sheep or goats are reported, USDA or IDALS (Iowa Department of Agriculture and Land Stewardship) veterinarians collect samples from the suspect animals.

Flock Clean-up Plans

USDA and/or IDALS 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 or goats, indemnification of the sheep and/or goats (if funds are available), euthanasia and sampling of susceptible animals, cleaning and disinfection of birthing areas, and follow-up inspections.

Scrapie Genetic Resistance Testing

Practitioners may be called upon by their clients to do genetic testing for Scrapie to determine an animal's genotype. When you collect samples for genotyping, be sure to review the guidelines so that the test meets the requirements for an official test under USDA policy. More information on Scrapie-resistance genetics in [sheep](#) and [goats](#) can be found on the [USDA National Scrapie Eradication Program Website](#).

For more information on the Iowa Scrapie Program visit the [Scrapie Pages](#) at the IDALS website!

[2019 NATIONAL SCRAPIE ERADICATION PROGRAM STANDARDS](#)

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

The primary gene that determines whether an animal is **susceptible** to classical 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 classical 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 classical Scrapie have been in “QQ” sheep. Sheep that are “QR” are usually resistant to Scrapie; there have only been a few 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.)

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.

	Ram			Ram			Ram																			
	Q	R	Q	R	R	R																				
Ewe	<table border="1" style="border-collapse: collapse; width: 100px; height: 100px;"> <tr><td>Q</td><td>QQ</td><td>QR</td></tr> <tr><td>R</td><td>QR</td><td>RR</td></tr> </table>		Q	QQ	QR	R	QR	RR	<table border="1" style="border-collapse: collapse; width: 100px; height: 100px;"> <tr><td>Q</td><td>QQ</td><td>QR</td></tr> <tr><td>Q</td><td>QQ</td><td>QR</td></tr> </table>		Q	QQ	QR	Q	QQ	QR	<table border="1" style="border-collapse: collapse; width: 100px; height: 100px;"> <tr><td>Q</td><td>QR</td><td>QR</td></tr> <tr><td>Q</td><td>QR</td><td>QR</td></tr> </table>		Q	QR	QR	Q	QR	QR		
Q			QQ	QR																						
R	QR	RR																								
Q	QQ	QR																								
Q	QQ	QR																								
Q	QR	QR																								
Q	QR	QR																								
	Q	R	Q	R	Q	Q																				

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

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 is most commonly 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.

Information for Producers about Official Scrapie Genotype Tests

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 Iowa Department of Agriculture and Land Stewardship website’s scrapie pages at: <https://iowaagriculture.gov/animal-industry-bureau/iowa-scrapie-program>).

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 a 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. 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. Bailey Goos with the USDA at 515-350-6922 or 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.

STATE 1	ALL INCOMPLETE RECORDS WILL BE RETURNED FOR COMPLETION					FORM APPROVED OMB NO. 0579-0101		
COOPERATIVE STATE - FEDERAL SCRAPIE CONTROL PROGRAM							A	
SCRAPIE TEST RECORD								
COUNTY OF OWNER 2	FLOCK OWNER'S NAME - LAST 3	FIRST 3	MI	PREVIOUS TEST DATE	PERSON ID (VETERINARIAN/SNGD)	TOTAL # OF SAMPLES 12		
FLOCK ID 4	FLOCK OWNER'S COMPLETE ADDRESS 3			CERTIFICATION FOR PAYMENT				
				<input type="checkbox"/> Cooperative Agreement <input type="checkbox"/> State/Federal Expense <input type="checkbox"/> Owner's Expense 13				
				I certify: That this test was made by me on the animals identified below on the dates as entered in appropriate spaces. That when payment is claimed at program expense in accordance with agreement number below, no payment has been or will be received from any other source.				
COUNTY OF FLOCK 5	FLOCK OWNER'S TELEPHONE NUMBER 3	SEC.	FARM NO.		VETERINARIAN'S SIGNATURE 11			TELEPHONE NO 11
7 REASON FOR TEST		COMPLETE FLOCK TEST OF ALL ELIGIBLE ANIMALS: <input type="checkbox"/> YES <input type="checkbox"/> NO			VETERINARIAN'S NAME (Please print) 11		COLLECTION DATE 14	
1 SURVEILLANCE	6 RETEST	6 NO. OF ANIMALS IN FLOCK _____			VETERINARIAN'S ADDRESS 11			
		KIND OF FLOCK						
		<input type="checkbox"/> SHEEP 8 <input type="checkbox"/> GOAT <input type="checkbox"/> OTHER _____ <input type="checkbox"/> MIXED						
		LAB TURN AROUND TIME						
		<input type="checkbox"/> 5 DAY TURNAROUND 9 <input type="checkbox"/> 10 DAY TURNAROUND			FAX NO. OR E-MAIL ADDRESS 11			
		TEST TYPE			AGREEMENT NO. 15			
		<input type="checkbox"/> 171 CODON ONLY 10 <input type="checkbox"/> 171/136 CODON <input type="checkbox"/> 136 CODON ONLY <input type="checkbox"/> 171/136/154 CODON <input type="checkbox"/> THIRD EYELID (TE) <input type="checkbox"/> OTHER _____			FLOCK STATUS			
					<input type="checkbox"/> SFCP 16 <input type="checkbox"/> EXPOSED <input type="checkbox"/> INFECTED <input type="checkbox"/> NONE <input type="checkbox"/> SOURCE <input type="checkbox"/> INVEST <input type="checkbox"/> OTHER _____			
OWNER'S REQUEST 4	MISSING EXPOSED EWE (ME) 9							
IMPORTED 5	OTHER 10							

Specimen #	Official ID Number	Other ID Numbers	Designation (pos, sus, exp, me, n/a)	Age	Sex (m,f,cm)	Breed (if unkn, face color)	3rd Eyelid Info		
							L	R	Seen/Unseen
	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

NOTE: Sample numbers on specimens must be the same as listed on this form.		Circle if the 3rd eyelid tissue came from the Left or Right eye Circle if the lymphoid tissue was Seen or Unseen	
DSE Name: Dr. Bailey Goos & Dr. Greg Schmitt Address: 23		Remarks:	
Phone Number: Fax Number: bailey.goos@usda.gov E-Mail: greg.schmitt@iowaagriculture.gov			
DATE: _____ OWNER'S SIGNATURE: 24		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 [officially identified](#).
- 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 [approved 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. HERD OWNER’S NAME & ADDRESS: 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. COMPLETE FLOCK TEST OF ALL ELIGIBLE ANIMALS: If whole flock test, check YES and give the number of the test eligible animals in the herd.
7. REASON FOR TEST: 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. CODON: Use 171 only.
11. SUBMITTING VETERINARIAN INFORMATION: 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. COLLECTION DATE: 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. IDENTIFICATION: This must be OFFICIAL identification (Scrapie ear tag). 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 or complete tag number of other type of Scrapie tag. 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. DESIGNATION: 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. BREED: 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. DESIGNATED SCRAPIE EPIDEMIOLOGIST (DSE): Complete contact information for the Designated Scrapie Epidemiologist in your area. For Iowa, use Bailey.Goos@usda.gov or Greg.Schmitt@iowaagriculture.gov 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 or Dr. Bailey Goos (515) 350-6922 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

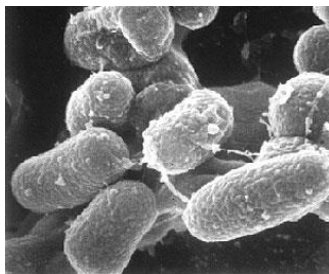
There are two types of PRV test charts: a "Form 1" is for testing that is requested by the State of Iowa. This testing can only be completed by an accredited veterinarian. Breeding swine must be individually officially identified on the test chart. The test chart must be completed accurately, and with 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 animals progress from 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. **Official** Johne's disease tests in Iowa 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 Johnes 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 Johnes' 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 Johnes' disease. In the Johnes' 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 Johnes' 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 Johnes' 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 Johnes' infected animals:

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

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) 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 a calf!
- ‘Super-shedders’ shed at the rate comparable to 20,000 low shedders and some can be subclinical initially!

4) 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:

<https://iowaagriculture.gov/animal-industry-bureau/johnes-disease-control-program>

Gary Eiben, DVM

Johne's Program Coordinator

Cell phone: (515) 669-6095

E-mail: Gary.Eiben@iowagriculture.gov

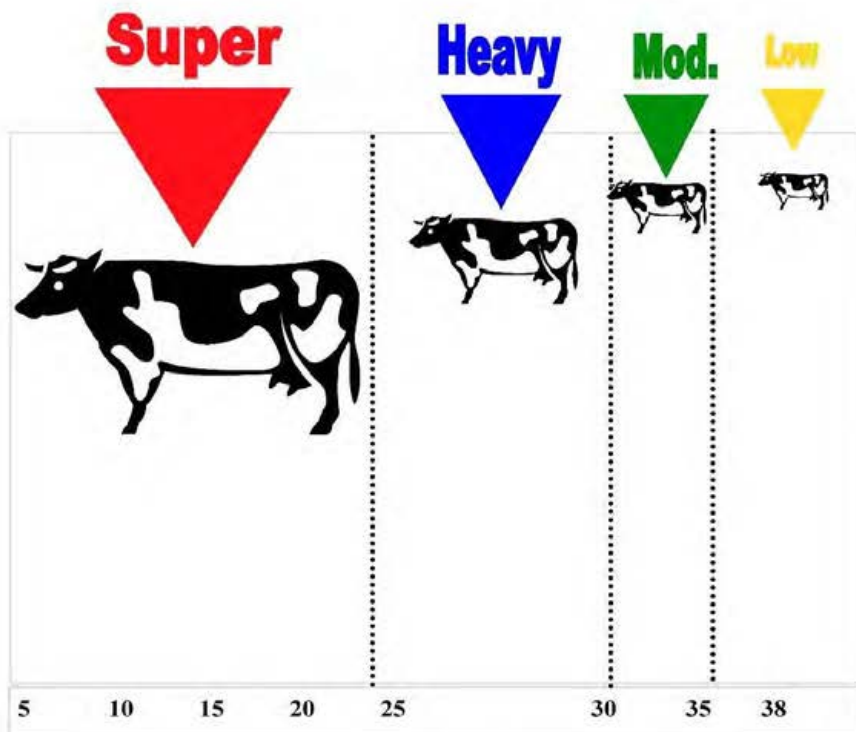
Johne's Voluntary Herd Classification Program

[https://iowaagriculture.gov/sites/default/files/animal-industry/pdf/Handbook/
Johnes_Voluntary_Herd_Classification_Program.pdf](https://iowaagriculture.gov/sites/default/files/animal-industry/pdf/Handbook/Johnes_Voluntary_Herd_Classification_Program.pdf)

Johne's-Iowa Administrative Code


<https://iowaagriculture.gov/sites/default/files/animal-industry/pdf/Handbook/JohnesIowaAdminCode.pdf>


PCR Guidelines for Estimating Shedding Categories



Ct = Cycles to Positive	
Super Shedder.....	<22
Heavy Shedder.....	22-29
Moderate Shedder....	29-34
Low Shedder.....	34-38
* Inconclusive.....	38-42
* Recommend to retest suspect animals in 30 to 60 days.	

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

2010 cELISA Interpretation Categories (Milk)	
S/P	Interpretation
≤ 0.30	Negative
0.30 - .40 	Suspect*
≥ 0.40	Positive
*A second cELISA test in 60 to 90 days is recommended to help determine status OR utilize fecal PCR or culture to confirm.	

2010 cELISA Interpretation Categories (Serum/Plasma)	
S/P	Interpretation
≤ 0.60	Negative
0.60 - .70 	Suspect*
≥ 0.70	Positive
*A second cELISA test in 60 to 90 days is recommended to help determine status OR utilize fecal PCR or culture to confirm.	



C-PUNCH VERIFICATION FORM

Animal ID (Accession#): _____

Status of Animal (dead/euthanized): _____

Date (C-Punched): _____

Owner Shipper Statement issued yes

Owner's Signature: _____

Owner Name & Address: _____

Name

Address, City, State, Zip Code

Phone: _____ County _____

Discussed Slaughter-Only Restrictions

District Veterinarian: _____

Signature

SAMPLE



Johne's Owner-Shipper Statement

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

Cattle				
Breed	Sex	Official Identification	Back Tag	Lab Report Accession Number

Are animals c-punched? () Yes () No

I affirm that the following livestock are being presented for consignment to `slaughter only` and will be sold only to slaughter:

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
Wallace State Office Building
502 E 9th St, 2nd Floor
Des Moines, IA 50319

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 followed the Cervid Chronic Wasting Disease Surveillance Identification (CCWDSI) program. The 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 11-13 months after the last annual inventory inspection. Records shall be kept documenting the history/accountability of all animals in the herd, including identification, during the inspection period. These records shall include, but are not 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 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. Identification 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 to be done no more than 3 years after the last physical herd inventory.

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 another 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 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 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

CWD Program Standards

https://www.aphis.usda.gov/animal_health/animal_diseases/cwd/downloads/cwd-program-standards.pdf

ADT/Traceability Fact sheet for interstate transport of Cervids

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

Regulatory Sample Collection

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



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 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 cases where the RSAT is positive and the 2ME-RSAT is negative, the dog will be classified as a suspect, a quarantine will be issued, and the dog retested in 30 days. They seldom stay suspect, either going negative or positive. If the dog is still suspect after 30 days, 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 8-12 weeks post-exposure.

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. 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.

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 quarantine 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. The RSAT at ISU VDL is the official test for quarantine release in Iowa.

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 Iowa. 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 Iowa 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.

Disinfecting for dog kennels to prevent the spread of Brucellosis

Brucella is a relatively hardy bacteria, does not form spores, and most common disinfectants are effective at killing it. 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.

Best Practices for *Brucella canis* Prevention and Control in Dog Breeding Facilities



https://www.aphis.usda.gov/animal_welfare/downloads/brucella_canis_prevention.pdf

Helpful Links



Iowa Rabies Resource Manual

<https://idph.iowa.gov/Portals/1/userfiles/79/Reports/Misc/Rabies/Rabies%20Resource%20Manual-%20Update%20III%20%20---%2003-24-2016.pdf>

 **InterstateLivestock.com** Hosted by   National Institute for Animal Agriculture

<http://www.interstatelivestock.com/>



IDALS Animal Industry News

<https://iowaagriculture.gov/animal-industry-bureau/animal-industry-newsletter>



<http://www.equinediseasecc.org/>



<http://www.iowavma.org/>



<https://www.avma.org>