

U.S. National List of Reportable Animal Diseases (NLRAD) - National Animal Health Reporting System (NAHRS) Operational Manual

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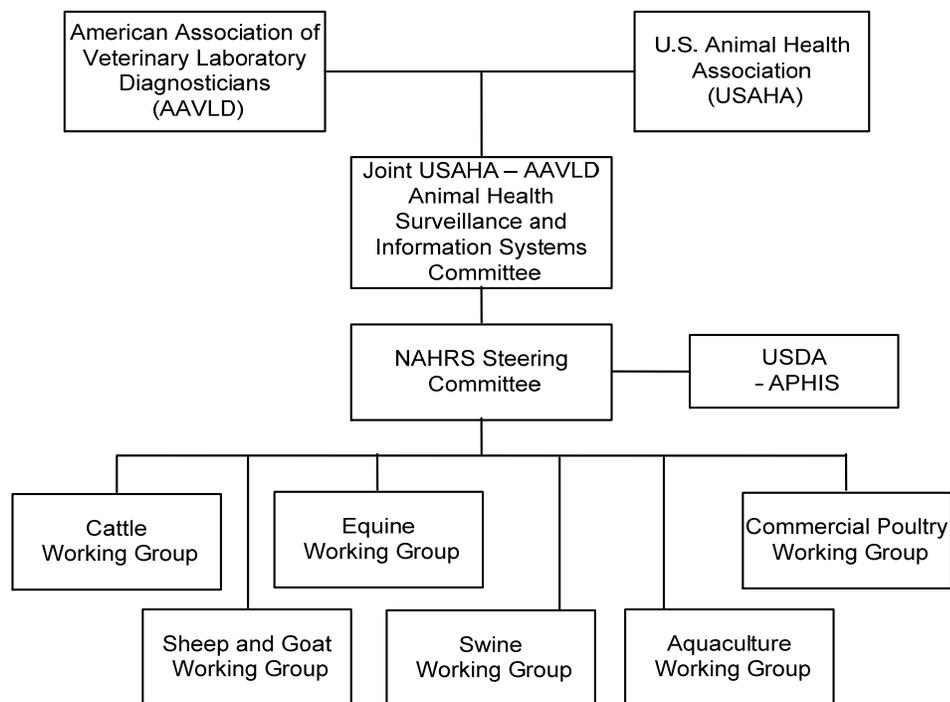
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Overview of the National List of Reportable Animal Diseases (NLRAD) – National Animal Health Reporting System (NAHRS) and List of Reference Materials

The NLRAD-NAHRS program is designed to provide summary-level data on the presence/or absence of all U.S. National List of Reportable Animal Diseases which has at its base all the World Organization for Animal Health (OIE) reportable diseases in the United States. Reporting is on the presence of NLRAD-listed diseases for which occurrence has been identified with a high level of certainty. In CY 2013, the NAHRS Web Reporting Tool was expanded from the OIE-listed diseases to allow reporting of all diseases on the cooperatively implemented U.S. National List of Reportable Animal Diseases (NLRAD). NLRAD-NAHRS is a voluntary, collaborative effort between participating States, the American Association of Veterinary Laboratory Diagnosticians (AAVLD), the United States Animal Health Association (USAHA), and the U.S. Department of Agriculture (USDA) Animal and Plant Health Inspection Service (APHIS). NLRAD-NAHRS functions under the direction of the NAHRS Steering Committee, which includes representatives from the AAVLD, USAHA, USDA-APHIS-Veterinary Services (VS), participating States, and experts representing each major commodity group: cattle/bison, cervid, sheep and goats, equine, swine, poultry, and aquaculture. NAHRS is managed by USDA APHIS Veterinary Services.

NAHRS Organizational Structure/NAHRS Committees



The NLRAD-NAHRS is an important component of comprehensive and integrated surveillance in the United States. The NLRAD-NAHRS reporting system reflects a broad range of animal disease surveillance activities in the United States.

Objectives of the NLRAD-NAHRS are:

- To demonstrate the integrated and transparent nature of disease surveillance and reporting in the United States and ultimately help protect the global market share of U.S. animals and animal products sold
- To provide the primary source of information used in the completion of OIE reports by USDA-APHIS-VS. This disease occurrence information is critical for the facilitation of United States (U.S.) international trade and for the U.S. to meet its reporting obligations as a member of OIE.
- To provide reporting that reflects the comprehensive summary-level animal disease status of the United States, and individual State reporting that reflects the summary-level disease status in that State
- Contribute to the assessment and reporting of listed zoonotic and endemic animal diseases

History of NAHRS

In the fall of 1988, the AAVLD proposed using laboratory data as a tool for monitoring animal diseases in the United States. The DxMONITOR Animal Health Report was developed and the first reports were distributed in 1990. The DxMONITOR Animal Health Report went through several modifications and revisions. The number of diseases monitored dropped to only five conditions in 1993. In 1995, USDA surveyed State veterinarians to determine the feasibility of a State reporting system. Almost all of those surveyed indicated they would be willing to participate in a national reporting system for State veterinarians.

In October 1996, USAHA passed a resolution to explore the potential for implementing a national animal health reporting system. A steering committee was appointed; members included commodity representatives and associated working groups. The steering committee recommended initiating an official reporting system to satisfy international trade requirements; specifically, reporting to the OIE and collecting information on OIE List A and List B diseases. NAHRS was intended to be a cooperative reporting system, which may include active surveillance for some diseases. It was intended to be a system for reporting information on the recognized presence of diseases within each State, using a variety of information sources. The system was designed initially to be based on the presence, rather than the amount, of a disease. The NAHRS commodity working groups were tasked to develop appropriate reporting criteria for each disease on OIE List A and List B. The NAHRS system was to expand and develop to meet the needs of animal health disease reporting in the United States.

United States National List of Reportable Animal Diseases (NLRAD)

The need for a United States National List of Reportable Animal Diseases (NLRAD) has been discussed for several years. The National Animal Health Reporting System (NAHRS) reportable list was recognized to a degree as a national reportable list., since it reflects the OIE list of notifiable diseases except for diseases of bee, amphibians, lagomorphs, and other (camelpox, leishmniosis). However, the NAHRS reportable list was never formally accepted as the U.S. NLRAD. In 2006, the USAHA /AAVLD Committee on Animal Health Information Systems (CAHIS), the committee that also oversees the NAHRS, formally identified the need for a unified national list of notifiable and reportable diseases. The USAHA recommended that the USDA APHIS VS CEAH compile and evaluate current state reporting and notification requirements. The evaluation summary was presented at the 2007 USAHA meeting and basically stated that ‘although all States have a required reportable diseases list, there exists large variability in these lists. In addition, requirements for federal reporting are required by regulation primarily related to ‘program’ diseases or foreign animal diseases (FADs).

The USAHA/ AAVLD CAHIS proceeded to request the USDA APHIS VS, in cooperation with state animal health officials and industry, develop a United State (U.S.) NLRAD. The resolution indicated that the World Organization for Animal Health (OIE) listed diseases be used as a starting point in developing of a U. S. NLRAD. In a follow-up 2008 USAHA Resolution # 10, the USAHA requested that the USDA task the existing NAHRS Steering Committee, with support from the VS Centers for Epidemiology & Animal Health (CEAH), with developing the NLRAD. This list should include identification of the diseases to be included on the NLRAD as well as the case definitions and reporting criteria for each disease on the list. The USDA APHIS VS supported the concept of a U.S. NLRAD and the tasking of the NAHRS Steering Committee in development of the NLRAD.

A United States National List of Reportable Animal Diseases (NLRAD) will be a uniform, science- and policy-based, nationally supported standardized list of animal diseases. It will provide the basis for consistent reporting with uniform case findings and reporting criteria. This will facilitate national, interstate, and international commerce; assist in meeting international reporting obligations to the World Organization for Animal Health (OIE) and trading partners; support the generation of export certifications; contribute to the assessment and reporting of listed zoonotic and endemic animal diseases; and facilitate response to an emerging disease or issue in the United States.

The NLRAD is being implemented through Federal-State cooperation. Regulatory action will officially recognize the NLRAD and codify specific reporting requirements for State animal health officials, laboratory personnel, producers, and others. The U.S. agriculture infrastructure is vulnerable to significant damage from listed as well as emerging diseases. The increased Federal authority for the NLRAD will help animal health officials protect the U.S. agriculture infrastructure.

The Animal and Plant Health Inspection Service (APHIS) Veterinary Services (VS), in collaboration with numerous stakeholders, developed the proposed NLRAD for the United States. The national list has been created through a deliberative process led by the United States Animal Health Association (USAHA)/American Association of Veterinary Laboratory Diagnosticians (AAVLD) Committee on Animal Health Information Systems (CAHIS), National Animal Health Reporting System (NAHRS) Steering Committee, and VS. The National Assembly of State Animal Health Officials and other stakeholders have supported these efforts and have been directly involved in developing the list.

The NLRAD list is based on the OIE-list of reportable diseases. It is intended to complement and supplement State reportable disease lists. The NLRAD will focus on agriculture and domestic animals. The significant role of wildlife on the epidemiology of domestic animal diseases is recognized; however, surveillance for wildlife diseases is carried out through multiple State and Federal agencies. State and Federal authority on reporting and control of diseases is primarily related to agriculture and domestic animals.

Implementation of the U.S. NLRAD is continuing with working groups that will: finalize and share recommendations with stakeholders; review and recommend diseases that will be included on the NLRAD list; continue development of NLRAD standard operating procedures; and begin the regulatory implementation process in late 2016.

Useful reference materials for the NLRAD-NAHRS:

National Center for Animal Health Surveillance (NCAHS) Web site:
<http://www.aphis.usda.gov/vs/ceah/ncahs/nahrs/index.htm>

National List of Reportable Animal Diseases and Emerging Diseases Framework Web site:
https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/program-overview/ct_national_list_reportable_animal_diseases

OIE publications may be viewed on line or ordered through their world wide web site at www.oie.int.

OIE *International Animal Health Code*, latest edition.

OIE *Manual of Standards for Diagnostic Tests and Vaccines*, latest edition.

OIE *International Aquatic Animal Health Codes*, latest edition.

OIE *Diagnostic Manual for Aquatic Animal Diseases*, latest edition.

American Association of Avian Pathologists' Laboratory Manual for the Isolation and Identification of Avian Pathogens, latest edition.

USDA:APHIS 91-55-031 *National Poultry Improvement Plan*, April 1996.

Code of Federal Regulations, Section 9.

Answers to Frequently Asked Questions about the NLRAD-NAHRS

1) What is the NLRAD-NAHRS? The NLRAD-NAHRS is a cooperative effort between the American Association of Veterinary Laboratory Diagnosticians (AAVLD), the U.S. Animal Health Association (USAHA) the USDA's Animal and Plant Health Inspection Service (APHIS) and participating States that was designed to provide data on the presence of U.S. NLRAD-listed diseases in livestock, poultry and aquaculture species in the U.S. The NLRAD-NAHRS provides a summary level overview of the disease status of the United States and provides data for reports required by the (OIE) from member countries.

2) Is the NLRAD-NAHRS the only source of data for completing the required OIE reports? No, the NLRAD-NAHRS is not the only source of information used to complete the OIE report. The NLRAD-NAHRS was designed to be one part of a comprehensive and integrated U.S. animal health information system.

3) How were the NLRAD-NAHRS diseases chosen? The NLRAD list is based on the OIE list of reportable diseases. Consideration of additional diseases is/will be based on: International importance (trade associated); Current economic and animal health impact in the United States; Commodity interests; Zoonotic implications; Potential to become an emerging issue; and Inclusion on State reportable disease lists. The U.S. NLRAD is intended to complement and supplement State reportable disease lists.

4) What are the potential benefits of participating in the NLRAD-NAHRS? Participation in the NLRAD-NAHRS will strengthen national animal disease reporting, assist your State's internal disease surveillance abilities, and enable your animal industries to provide information needed for international trade and disease control. Disease summary level NAHRS reports are also available to participating States through the NAHRS Online Reporting Tool.

5) What are the costs of participating in the NLRAD-NAHRS? Costs are associated with collection and validation of information on cases of confirmed disease in your State. The average time needed to complete the monthly reports is estimated to be 4-8 hours a month.

6) How is the NAHRS program funded? Cooperative Agreement funding is available under reporting.

7) How will participation in the NLRAD-NAHRS affect confidentiality of the producers in my State? No individual owner information is submitted through the NLRAD-NAHRS. Data are collected through and verified by chief State animal health officials (State Veterinarian) so there are no surprises in what is reported.

8) How will disease reporting for wildlife and feral animals be covered under the NLRAD-NAHRS? The NLRAD-NAHRS is primarily intended to report on livestock, poultry and aquaculture. While disease information on wildlife or feral species may be reported to the system, and is encouraged, reporting officials are asked to clearly state in the comment section that reporting is related to wildlife or feral species.

9) What are the sources of data for the NAHRS? Data sources include, but are not limited to, animal disease diagnostic laboratories, public health laboratories that test for zoonotic diseases, private practitioners, accredited veterinarians, fish and wildlife departments, extension veterinarians, universities, and veterinary teaching hospitals. Anyone who is able to provide you with verifiable animal health data should be considered a potential data source.

10) What does reporting of 'confirmed disease' actually mean? 'Confirmed' occurrence of NLRAD-NAHRS reportable diseases are those diseases that meet NLRAD-NAHRS reporting criteria and/or are 'confirmed' by using additional information. Additional information utilized to 'confirm' disease occurrence can include other testing methods or additional epidemiological information.

11) How do I handle NLRAD-NAHRS Reporting Criteria for diseases that include a 'presumptive' and confirmed/definitive level of disease confirmation? If a disease meets the confirmed/definitive criteria it must be reported to NLRAD-NAHRS. It is recognized though that for many diseases, especially endemic diseases, that the level of diagnostics may not be taken to the confirmed/definitive level. If a disease meets the 'presumptive' level of diagnostics only, State animal health officials must use their discretion to decide if the case is a valid case. If it is considered a valid case it should be reported to NLRAD-NAHRS.

12) Do I have to report on all of the diseases on the NLRAD-NAHRS list (can I pick and choose)? Participation in the NLRAD-NAHRS is currently cooperative and voluntary, however, participating States need to report on ALL listed diseases for the industries in the State. A 'Y' marked for a disease indicates that at least one case of the particular disease was confirmed as occurring for the month. A 'N' marked for a disease indicates that no confirmed positive disease information was available. A 'N' report for an endemic disease means no confirmed positive information was available, *not* that the disease does not occur in the State. With this in mind, there should be few, if any, instances in which you would leave a disease line blank. NLRAD Regulatory Authority, in the process of being initiated, will require mandatory reporting on all NLRAD-listed diseases.

13) How do I report an endemic disease that doesn't fit the NLRAD-NAHRS case definition? The disease reporting criteria are intended as minimum guidelines. If you have a case which fits the reporting criteria, you must report the presence of confirmed disease. If you have a case which does not meet the reporting criteria, you may use additional information, alternative laboratory testing, or epidemiology to decide whether or not to report the presence of confirmed disease to the NLRAD-NAHRS.

14) What information should I include in the comment section of the NLRAD-NAHRS report? Comments are requested that include level of laboratory diagnosis for positive, 'Y', occurrence, if available (e.g., AGID, paired sera, etc.). Comments are also requested that clarify reporting (e.g., backyard poultry, wild species, or feral).

15) If I have a disease which is known to be widespread but is well controlled by vaccination and there have been no clinical cases, how do I report it? Again, you are only being asked to report the presence of confirmed disease in your State.

16) What do I do about cases for which I don't have an answer at the time the NLRAD-NAHRS report is due (insufficient information)? Report when a case is confirmed. Past reports can be edited by contacting the NLRAD-NAHRS Coordinator by phone or an e-mail describing changes required to a report.

17) How often do I have to report to the NLRAD-NAHRS? The NAHRS is designed to gather data on a monthly basis.

18) What are the monthly time lines for NLRAD-NAHRS reporting? Disease data reports from previous month are requested the middle of the month, preferably by the 20th.

19) How will the NLRAD-NAHRS data be reported? The NLRAD-NAHRS monthly State report requests information on the presence of individual diseases by commodity. The NLRAD-NAHRS is currently based on the presence rather than the amount of disease (exception was the request for additional equine EIA (which in 2016-17 will be gathered through NAHRS and EIA laboratories EIA testing data.)

20) What are the epidemiological uses of the NLRAD-NAHRS data? The data collected by the NLRAD-NAHRS are qualitative presence data and should be used accordingly. A positive report may be considered representative of the presence of confirmed clinical disease.

21) Where can additional information be found on NLRAD-NAHRS? Additional information on NLRAD-NAHRS can be found at the USDA APHIS Animal Health, Monitoring and Surveillance, NAHRS Web site: https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/monitoring-and-surveillance/sa_disease_reporting/ct_usda_aphis_animal_health

2016 U.S. National List of Reportable Animal Diseases (NLRAD) - National Animal Health Reporting System (NAHRS) Reportable Disease List

BOVINE

A010	Foot-and-mouth disease (FMD)
A020	Vesicular stomatitis (VS)
A040	Rinderpest
A060	Contagious bovine pleuropneumonia (<i>Mycoplasma mycoides mycoides</i>)
A070	Lumpy skin disease
A080	Rift Valley fever
A090	Bluetongue
N001	Crimean Congo hemorrhagic fever
2001	Akabane (congenital arthrogryposis-hydranencephalaly syndrome)
B051	Anthrax (<i>Bacillus anthracis</i>)
B052	Aujesky's disease (Pseudorabies)
B053	Echinococcosis / hydatidosis (<i>Echinococcus granulosus</i>)
B055	Heartwater (<i>Cowdria ruminantium</i>)
B057	Q Fever (<i>Coxiella burnetii</i>)
B058	Rabies
B059	Paratuberculosis (Johne's disease - (<i>Mycobacterium avium paratuberculosis</i>)
B060	New World screwworm (<i>Cochliomyia hominivorax</i>)
B061	Old World screwworm (<i>Chrysomya bezziana</i>)
B101	Anaplasmosis (<i>Anaplasma marginale</i> , <i>A. centrale</i>)
B102	Babesiosis (<i>Babesia bovis</i> , <i>B. bigemina</i>)
B103	Bovine brucellosis (<i>B. abortus</i>)
B152	Caprine and ovine brucellosis (<i>B. melitensis</i>)
B253	Porcine brucellosis (<i>B. suis</i>)
B104	Bovine genital campylobacteriosis (<i>Campylobacter fetus venerealis</i>)
B105	Bovine tuberculosis (<i>Mycobacterium bovis</i>)
N117	Bovine viral diarrhea (BVD)
B108	Enzootic bovine leukosis (BLV)
B109	Hemorrhagic septicemia (<i>Pasteurella multocida</i> , serotypes B/Asian or E/African)
B110	Infectious bovine rhinotracheitis/infectious pustular vulvovaginitis (IBR/IPV)
B111	Theileriasis (<i>Theileria annulata</i> , <i>T. parva</i>)
B112	Trichomoniasis (<i>Trichomonas [Trichomonas] foetus</i>)
B113	Trypanosomiasis (<i>Trypanosoma congolense</i> , <i>T. vivax</i> , <i>T. brucei brucei</i> , <i>T. evansi</i>)

- B114 Malignant catarrhal fever (specify wildebeest or sheep form)
- B115 Bovine spongiform encephalopathy (BSE)
- N158 Epizootic hemorrhagic disease (EHD)
- C613 Melioidosis (*Burkholderia pseudomallei*)

CAPRINE AND OVINE

- A010 Foot-and-mouth disease (FMD)
- A020 Vesicular stomatitis (VS)
- A040 Rinderpest
- A050 Peste des petits ruminants
- A080 Rift Valley fever
- A090 Bluetongue
- A100 Sheep pox and goat pox
- N001 Crimean Congo hemorrhagic fever
- 2001 Akabane (congenital arthrogryposis-hydranencephalaly syndrome)
- B051 Anthrax (*Bacillus anthracis*)
- B052 Aujesky's disease (Pseudorabies)
- B053 Echinococcosis / hydatidosis
- B055 Heartwater (*Cowdria ruminantium*)
- B057 Q Fever (*Coxiella burnetti*)
- B058 Rabies
- B059 Paratuberculosis (Johne's disease - *Mycobacterium avium paratuberculosis*)
- B060 New World screwworm (*Cochliomyia hominivorax*)
- B061 Old World screwworm (*Chrysomya bezziana*)
- B103 Bovine brucellosis (*B. abortus*)
- B105 Bovine tuberculosis (*Mycobacterium bovis*)
- B111 Theileriasis (*Theileria annulata*, *T. parva*)
- B152 Caprine and ovine brucellosis (*B. melitensis*)
- B151 Ovine epididymitis (*Brucella ovis* infection)
- B153 Caprine arthritis / encephalitis (CAE)
- B154 Contagious agalactia (*Mycoplasma agalactiae*, *M. Capricolum capricolum*, *M. putrefaciens*, *M. mycoides mycoides*, *M. mycoides mycoides LC*)
- B155 Contagious caprine pleuropneumonia (*Mycoplasma capricolum capripneumoniae*)
- B156 Enzootic abortion of ewes (*Ovine psittacosis*, *Chlamydia psittaci*)
- B158 Nairobi sheep disease
- B159 Salmonellosis (*Salmonella abortus ovis*)
- B160 Scrapie
- B161 Maedi-visna/ovine progressive pneumonia
- B352 Tularemia (*Francisella tularensis*)
- N002 West Nile fever

- C613 Melioidosis (*Burkholderia pseudomallei*)
 C706 Mange (*Sarcoptes scabiei var ovis*, *Chorioptes bovis*, *Psoroptes ovis*, *Psoroptes cuniculi*,
Psoregates ovis)

EQUINE

- A020 Vesicular stomatitis (VS)
 A110 African horse sickness
 B051 Anthrax (*Bacillus anthracis*)
 B053 Echinococcosis / hydatidosis
 B058 Rabies
 B060 New World screwworm (*Cochliomyia hominivorax*)
 B061 Old World screwworm (*Chrysomya bezziana*)
 B062 Trichinellosis (*Trichinella spiralis*)
 B201 Contagious equine metritis (*Taylorella equigenitalis*)
 B202 Dourine (*Trypanosoma equiperadum*)
 N220 Equine encephalomyelitis (Eastern)
 N221 Equine encephalomyelitis (Western)
 B205 Equine infectious anemia (EIA)
 B206 Equine influenza (Virus Type A)
 B207 Equine piroplasmiasis (babesiosis, *Babesia [Piroplasma] equi*, *B. caballi*)
 B208 Equine rhinopneumonitis (EHV- 1)
 B208a Equine herpesvirus myeloencephalopathy (EHV1 - EHM)
 B209 Glanders (*Pseudomonas mallei*)
 B211 Equine viral arteritis (EVA)
 B212 Japanese encephalitis
 B215 Surra (*Trypanosoma evansi*)
 B216 Venezuelan equine encephalomyelitis
 B352 Tularemia (*Francisella tularensis*)
 N002 West Nile fever
 W075 Hendra
 C613 Melioidosis (*Burkholderia pseudomallei*)

PORCINE

- A010 Foot-and-mouth disease (FMD)
 A020 Vesicular stomatitis (VS)
 A030 Swine vesicular disease
 A040 Rinderpest
 A120 African swine fever
 A130 Classical swine fever (hog cholera)
 N258 Nipah virus encephalitis
 B051 Anthrax (*Bacillus anthracis*)

B052	Aujesky's disease (Pseudorabies)
B053	Echinococcosis / hydatidosis
B058	Rabies
B060	New World screwworm (<i>Cochliomyia hominivorax</i>)
B061	Old World screwworm (<i>Chrysomya bezziana</i>)
B062	Trichinellosis (<i>Trichinella spiralis</i>)
B212	Japanese encephalitis
B252	Cysticercosis (<i>Cysticercus cellulosae</i> metacestode stage of <i>Taenia solium</i>)
B253	Porcine brucellosis (<i>B. suis</i>)
B254	Transmissible gastroenteritis (TGE)
B257	Porcine reproductive and respiratory syndrome (PRRS)
B352	Tularemia (<i>Francisella tularensis</i>)
C613	Melioidosis (<i>Burkholderia pseudomallei</i>)
C801	Swine erysipelas (<i>Erysipelothrix rhusiopathiae</i>)
2006	Vesicular exanthema
2010	Swine Enteric Coronavirus Disease (SECD) (Porcine epidemic diarrhea virus –PEDV; Porcine delta coronavirus (PDCoV)

POULTRY

A150h	Highly pathogenic avian influenza
A150i	Low pathogenic avian influenza (H5 or H7 subtypes)
A160	Newcastle disease (Exotic)
N315	Turkey rhinotracheitis
B301	Avian infectious bronchitis
B302	Avian infectious laryngotracheitis
B304	Duck viral hepatitis
B308	Fowl typhoid (<i>Salmonella gallinarum</i>)
B309	Infectious bursal disease (Gumboro disease)
B311	Mycoplasmosis (<i>M. gallisepticum</i>)
B312	Avian chlamydiosis (psittacosis and ornithosis, <i>Chlamydia psittaci</i>)
B313	Pullorum disease (<i>Salmonella pullorum</i>)
N316	Mycoplasmosis (<i>M. synoviae</i>)

AQUACULTURE

B401	Fish: Viral hemorrhagic septicemia (VHS)
B402	Fish: Infectious pancreatic necrosis
N416	Fish: Infectious salmon anemia (ISA)(HPR-deleted or HPR0)
B404	Fish: Spring viremia of carp (SVC)
B405	Fish: Infectious hematopoietic necrosis (IHN)
B408	Fish: Bacterial kidney disease (<i>Renibacterium salmoninarium</i>)
N412	Fish: Viral encephalopathy and retinopathy

B413	Fish: Epizootic hematopoietic necrosis
B415	Fish: Oncorhynchus masou virus disease (herpesvirosis of salmonids)
N417	Fish: Epizootic ulcerative syndrome (EUS)
N418	Fish: Gyrodactylosis (<i>Gyrodactylus salaris</i>)
N419	Fish: Red sea bream iridoviral disease
N420	Fish: Koi herpesvirus disease
N415	Fish: Piscirickettsiosis (<i>Piscirickettsia salmonis</i>)
2002	Fish: Whirling disease (<i>Myxobolus cerebralis</i>)
2003	Fish: White sturgeon iridoviral disease
2011	Fish: Infection with salmonid alphavirus
N430	Mollusc: Infection with <i>Bonamia ostreae</i>
N431	Mollusc: Infection with <i>Bonamia exitiosa/roughleyi</i>
N432	Mollusc: Infection with <i>Marteilia refringens</i>
N433	Mollusc: Infection with <i>Perkinsus marinus</i>
N434	Mollusc: Infection with <i>Perkinsus olseni/atlanticus</i>
N435	Mollusc: Infection with <i>Xenohaliotis californiensis</i>
N436	Mollusc: Infection with abalone herpes-like virus
N463	Mollusc: Abalone viral mortality
2004	Mollusc: Infection with <i>Marteilia chungmuensis</i>
2005	Mollusc: Infection with <i>Marteilia sydneyi</i>
N438	Mollusc: Infection with <i>Haplosporidium nelson</i> (MSX) or <i>Haplosporidium costale</i> (sea side organism)
2007	Mollusc: QPX (Quahog parasite unknown)
N441	Crustacean: Spherical baculovirosis (Penaeus monodon-type baculovirus)
N442	Crustacean: Tetrahedral baculovirosis (<i>Baculovirus penaei</i>)
N450	Crustacean: Taura syndrome
N451	Crustacean: White spot disease
N452	Crustacean: Yellowhead disease
N455	Crustacean: Infectious hypodermal and haematopoietic necrosis
N456	Crustacean: Crayfish plague (<i>Aphanomyces astaci</i>)
N457	Crustacean: Infectious myonecrosis
N458	Crustacean: White tail disease
N459	Crustacean: Acute hepatopancreatic necrosis disease (<i>V.parahemolyticus</i> pVA-1 plasmid)

FARMED CERVIDS

A010	Foot-and-mouth disease (FMD)
A020	Vesicular stomatitis (VS)
A040	Rinderpest
A080	Rift Valley fever
N001	Crimean Congo hemorrhagic fever

2001	Akabane (congenital arthrogryposis-hydranencephalaly syndrome)
A090	Bluetongue
B051	Anthrax (<i>Bacillus anthracis</i>)
B052	Aujesky's disease (Pseudorabies)
B053	Echinococcosis / hydatidosis
B055	Heartwater (<i>Cowdria ruminantium</i>)
B057	Q Fever (<i>Coxiella burnetti</i>)
B058	Rabies
B059	Paratuberculosis (Johne's disease - <i>Mycobacterium avium</i> paratuberculosis)
B060	New World screwworm (<i>Cochliomyia hominivorax</i>)
B061	Old World screwworm (<i>Chrysomya bezziana</i>)
B103	Bovine brucellosis (<i>B. abortus</i>)
B152	Caprine and ovine brucellosis (<i>B. melitensis</i>)
B253	Porcine brucellosis (<i>B. suis</i>)
B105	Bovine tuberculosis (<i>Mycobacterium bovis</i>)
B114	Malignant catarrhal fever
N156	Chronic wasting disease (CWD)
N158	Epizootic hemorrhagic disease (EHD)
C613	Melioidosis (<i>Burkholderia pseudomallei</i>)

LAGOMORPH (Rabbits & Hares)

B351	Myxomatosis
B352	Tularemia (<i>Francisella tularensis</i>)
B353	Rabbit hemorrhagic disease

OTHER DISEASES

B501	Leishmaniosis
N502	Camelpox

AMPHIBIAN DISEASES

N601	Infection with <i>Batrachochytrium dendrobatidis</i>
N602	Infection with ranavirus

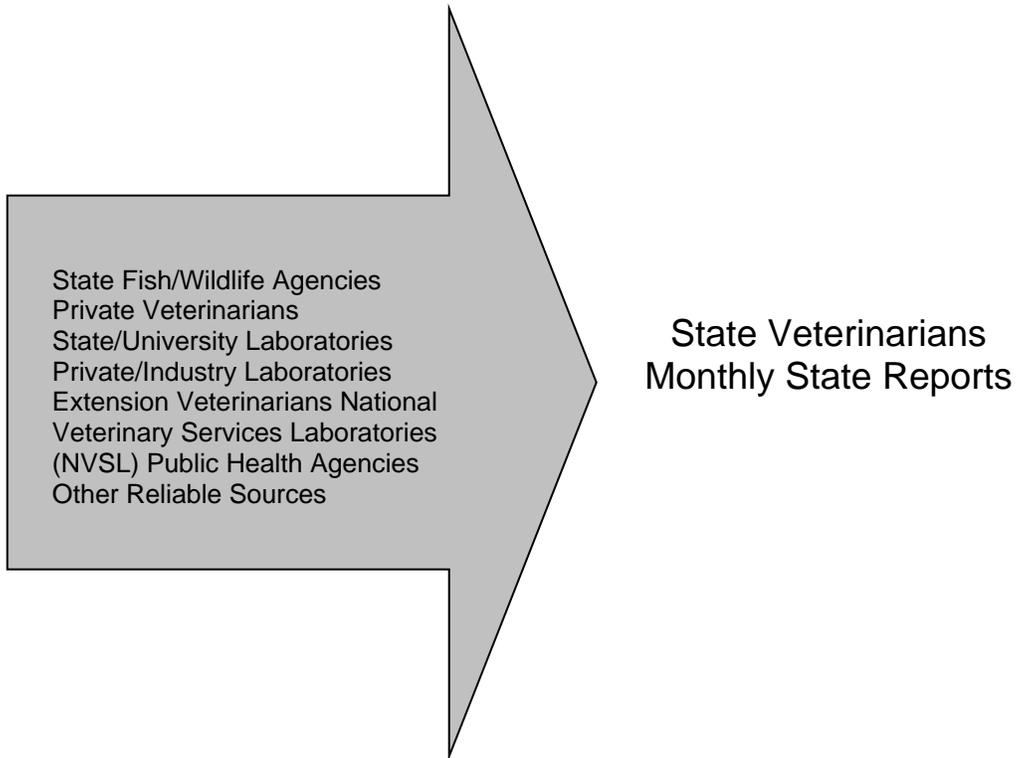
BEE (APIARY) (optional reporting requirement as other agencies responsible)

B451	Acarapisosis of honey bees
B452	American foulbrood of honey bees
B453	European foulbrood of honey bees
B455	Varroosis of honey bees
2008	Tropilaelaps infestation of honey bees
2009	Small hive beetle infestation (<i>Aethina tumida</i>)

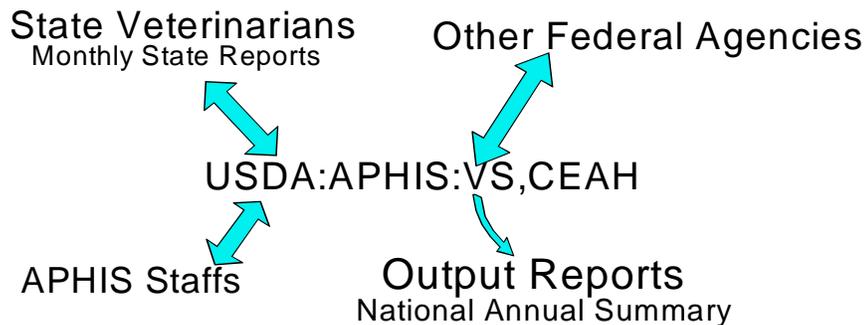
NLRAD-NAHRS Program Implementation Procedures

1. **Support by top State animal health officials critical** (i.e. State Veterinarian and USDA APHIS Veterinary Services Assistant Director). Benefits: 1. Enhance national animal health disease surveillance and reporting infrastructure. 2. NLRAD-NAHRS Disease reporting information coordinated through State Veterinarian's Office. 3. Utilizes well defined disease reporting criteria. 4. Helps meet trade commitments related to having a national surveillance system.
2. **Identify disease information sources.** Identify diagnostic laboratories in your State and other potential data sources: public health agencies/ labs; fish and wildlife agencies/ labs; private practitioners; extension specialists; university and veterinary teaching hospitals; etc. Out-of-State laboratories that process samples from your State should also be contacted. Anyone who is able to provide you with verifiable animal health data should be considered a potential data source.
3. **Educate key stakeholders.** Educate Ag Boards (if applicable), livestock industries, veterinary and producer organizations, laboratories, staff, and other stakeholders in your State to gain support on participating in the NLRAD-NAHRS.
4. **Review reportable disease list if required.** Review the existing reportable disease list of your State and identify diseases that are on the U.S. NLRAD that may not be on your State Reportable Disease list. U.S. NLRAD-listed diseases will require reporting to the national level.
5. **Designate a Person of Primary Responsibility.** Identify and designate a person to be responsible for reporting for your State. Inform the NLRAD-NAHRS Coordinator on the individual and NLRAD-NAHRS Online Reporting tool access will be set up.
6. **Establish criteria and coordinate collection of data.** Review the NLRAD-NAHRS disease reporting criteria and define expectations for sources. Make sure laboratories and other data sources have a copy of the criteria—NLRAD-NAHRS Uniform Methods and Rules (UM &R)—available at NAHRS Web site: https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/monitoring-and-surveillance/sa_disease_reporting/ct_usda_aphis_animal_health or NAHRS disease reporting criteria can be viewed while reporting through the NLRAD-NAHRS Online Reporting tool.
7. **Collate data.** Establish a mechanism for collating data from the various sources in your State into a useable and transferable format that can be utilized to submit the monthly NLRAD-NAHRS report. (Veterinary Services is working to assist in providing electronic transmission of data, to minimize manual entry)
8. **Submit data.** Submit the monthly NLRAD-NAHRS report after verification of data. NAHRS Online Reporting System is the recommended reporting method at: <https://vsapps.aphis.usda.gov/NAHRS/login.do>

Input for NLRAD-NAHRS Monthly State Reports



Data Flow for NAHRS Verification and Output Reports



NLRAD-NAHRS User's Quick Guide:



National List of Reportable Animal Diseases (NLRAD) National Animal Health Reporting System (NAHRS) Online Reporting Tool - Version 5

How to log on, create, submit and view NAHRS reports

URL: <https://vsapps.aphis.usda.gov/NAHRS/>

Purpose: The NLRAD - NAHRS online reporting tool enables State animal health officials or designates to complete their monthly NAHRS reports, view past reports, and access cumulative National and State reports with assurance of secure data transfer and information confidentiality. Additional information on the NLRAD – NAHRS can be found at the USDA APHIS Animal Health Monitoring and Surveillance Web site: https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/monitoring-and-surveillance/sa_disease_reporting/ct_usda_aphis_animal_health

These instructions are intended for State Veterinarians and/or their designates who are reporting to NAHRS. Your role in the NAHRS system determines your access and permissions in this reporting tool. Only authorized individuals can access the NLRAD - NAHRS online reporting tool. Users are assigned to roles in the system based on their responsibilities and authorities. The primary roles are:

Role	Description	Privileges
Chief: State animal health official (or designated representative)	The State animal health official who completes or approves monthly NAHRS data for a State	<ul style="list-style-type: none">• Approve and electronically submit monthly reports to CEAH• Create a new monthly report• Edit an existing monthly report not yet submitted to CEAH• View all monthly NAHRS reports
State Designate	A State official who is designated by the Chief State animal health official to enter and view NAHRS monthly data for a State	<ul style="list-style-type: none">• Create a new monthly report• Submit a report to the 'Chief' role• Edit an existing monthly report that has not been submitted to CEAH• View all monthly NAHRS reports
State Reader	An individual authorized by the Chief State animal health official to view NAHRS monthly data for a State – 'View Only'	<ul style="list-style-type: none">• View all monthly NAHRS reports

Request Access to use the NLRAD - NAHRS Online Reporting Tool

- 1. Request a NAHRS user account.** To obtain an initial NAHRS user role and password, contact the NAHRS Coordinator, Dr. Stan Bruntz, APHIS VS Science, Technology and Analysis Services (STAS) at: E-mail stanley.d.bruntz@aphis.usda.gov or phone **970-494-7246**.

2. **Request USDA eAuthentication (eAuth) account.** If you do not currently have a USDA eAuthentication account (level 1 or 2), you will need to obtain one. Go to: <https://identitymanager.eems.usda.gov/registration/index.aspx> and at a minimum select “Register for a Level 1 Account.”
3. **APHIS IT assistance (Mission Critical Application Support, MCAS) –Help Desk (help@aphis.usda.gov) will contact you.** AHPIS Help Desk will provide you with a temporary (One Time) password to assist in synchronizing the NLRAD – NAHRS Online Reporting Tool with your USDA eAuthentication account. Step 4 ‘One Time Only’

Log in to NLRAD - NAHRS Online Reporting Tool utilizing USDA eAuthentication Credentials

1. Open a Web browser and go to the address for the NLRAD - NAHRS Online Reporting Tool: <https://vsapps.aphis.usda.gov/NAHRS/>
2. On the opening screen, select the eAuth Login button:



3. On the USDA eAuthentication Login Page, enter your eAuth username and password
4. **‘One Time Only’:** The first time you log onto the NLRAD - NAHRS Online Reporting Tool, you will be required to ‘Synchronize your Account’. Use the temporary password provided to you by APHIS IT Help Desk (MCAS) in completing the synchronization.

Note: After your initial login to the NLRAD - NAHRS application and account synchronization, you will simply enter your USDA eAuthentication username and password and the NAHRS application will open.

From here, you can create a new report, review existing reports, or link to other places (via navigation box on left side of screen) including the NAHRS web site, password guide, instructions and contact information.

Creating a NLRAD - NAHRS report

- **To create a new monthly report,** go to **Create New Report** box. Select month, then choose **Create Report**. If the report already exists, it will appear in **Preview** mode. If it is in draft status, select **Edit** to continue modifying the report; if it is in **Final** status, the report has already been submitted. If the **Final** status report requires editing contact the NAHRS Coordinator, Dr. Stan Bruntz, APHIS VS STAS at: E-mail stanley.d.bruntz@aphis.usda.gov or phone (970) 494-7246, and the report will be reset to **Draft** status.

- Fill out the report by selecting ‘Y’ (yes) or ‘N’ (no) for confirmed disease presence or absence. To view disease reporting criteria, drag cursor over disease number. You may automatically fill in ‘N’ (no) values for all diseases within a species group by choosing **select here** (gray bar at top of each species list) to set all diseases for this species to **no** and then manually change to ‘Y’ (yes) for any diseases that are present. As a guide, a hard copy of the ‘NAHRS Monthly Report Form’ can be downloaded at the NAHRS Web site.

Click on disease number to view the disease reporting criteria.	PRESENT		COMMENTS
	Y	N	
BOVINE			
Select here to set all diseases for this species to "No"		<input type="radio"/>	
A010 : Foot And Mouth Disease	<input type="radio"/>	<input type="radio"/>	
020 : ...	<input type="radio"/>		

- Add comments for any disease by typing in comment box. Include comments that clarify reporting (e.g., backyard poultry, wild species, or feral) or level of laboratory diagnosis (e.g., AGID, paired sera, etc.). Click outside comment box when finished. Delete a comment by returning to box and deleting text.
- Additional information on reporting and reporting criteria can be found at the NAHRS Web site – NAHRS Participant Information: https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/monitoring-and-surveillance/sa_disease_reporting/ct_info_for_participants

Optional: EIA reporting: In 2016 - 2017 Transitioning to Laboratory Reporting of EIA Testing

1. Number of EIA <u>tests</u> performed in reporting month. <input type="text"/>
2. Number of horses tested in reporting month (if unavailable leave blank). <input type="text"/>
3. Number of <u>horses</u> tested positive in reporting month. <input type="text"/>
4. Number of <u>premises</u> (epidemiological units) with <input type="text"/>

In the equine section, there are additional questions on equine infectious anemia (EIA). Click on the ? button for more information on each question. This information will be summarized for your State and replaces the requirement to complete a separate annual EIA testing report. We realize that EIA testing data may come in after NAHRS reports have been

submitted. You may send updated EIA testing numbers to the NAHRS coordinator in an e-mail and the EIA monthly data will be corrected. The reported EIA information will also be validated annually through State animal health officials.

Submitting a report

- When you are finished editing a report, you have these options:
- Select **Preview** to complete a final check of the report, make edits, submit it, or create a PDF version of the report.
 - To save the report and work on it later, select **Close and Save**. To return to your report, log in, open **User Home Page**, and go to the **State Monthly Reports** box. Select year, then month (report will be labeled ‘draft’). Select **edit** to resume reporting.

- To submit reports, choose **Submit to CEAH** or, if you are the State Designate, select **Submit to State**. If you have not selected ‘Y’ or ‘N’ for all diseases, a popup box will appear indicating that the report is not complete. (*Note: Once you submit to CEAH, contact the NAHRS coordinator to make any edits or changes.*)

If a report is submitted to CEAH with disease information left blank, an error message will pop up asking you to verify that you want to submit with the information missing (reports can be submitted with missing information). Reminder: a ‘no’ indicates that no confirmed positive disease information was available to you. For example, a ‘no’ report for an endemic disease means no confirmed positive information was available, *not* that the disease does not occur in your State. There are very few instances in which you would leave a disease line blank. In the reports, **NR** indicates that neither ‘Y’ nor ‘N’ was selected for the disease.

Changing or Editing Reports

To make changes or edits to a submitted report (Final status) contact the NAHRS Coordinator, Dr. Stan Bruntz, APHIS VS STAS at: E-mail stanley.d.bruntz@aphis.usda.gov or phone (970) 494-7246, and the report will be reset to **Draft** status. After changes or edits are made to the report, it must be resubmitted to APHIS VS (**Submit to CEAH**).

Viewing reports

From your **User Home Page**, you may view a number of State and National NAHRS reports. Bring up a report by clicking on year (and month if necessary). State readers will have access only to view reports. You may save any report to your local directory as a PDF file.

State Monthly Reports will allow you to view current and past monthly reports for your State.

State Cumulative Reports will show your State’s reporting summary by month for a given year.

National Cumulative Reports will show the number of States that reported each disease for a given year. If a cell is highlighted, it indicates that the disease was present in your State that month (see box at right).

BOVINE							
OIE No.	OIE Disease Name	Jan	Feb	Mar	Apr	May	Jun
A010	Foot And Mouth Disease	0	0	0	0	0	0
A020	Vesicular Stomatitis	2	0	0	0	0	1
A040	Rinderpest	0	0	0	0	0	1
A080	Contagious Bovine Pleuropneumonia	0	0	0	0	0	1

Miscellaneous Reports will show your State’s EIA data summaries.

USDA Security & NAHRS Web Reporting Tool - User ‘Locked Out’

Your Account Is Locked.

Users must have a USDA eAuthentication account to access the National Animal Health Reporting System (NAHRS) Web application. Click on the eAuth Login button below to login to NAHRS with your USDA eAuthentication account information.

[eAuth Login](#)

The USDA has Federal Information Technology (IT) System Security Standard requirements, such as ‘change of passwords’ and ‘system use requirements (locked out after 30 days of no activity on the Web NLRAD – NAHRS Operational Manual June 6, 2016

site),’ etc., that assist in maintaining the integrity and safe use of USDA IT systems. Due to these USDA IT security rules, NLRAD - NAHRS Web Reporting tool users may find that they are ‘**Locked Out**’ of the system. If you are ‘Locked Out’ or have other access problems, please contact the NAHRS Coordinator, Dr. Stan Bruntz, APHIS VS STAS, at: E-mail stanley.d.bruntz@aphis.usda.gov or phone (970) 494-7246, or the APHIS IT Help Desk (MCAS) at: help@usda.gov . **We will quickly address the issue and restore your access to the NAHRS Web Reporting tool.**

***Help:** For help with accessing or using the NLRAD - NAHRS online reporting tool, contact the NAHRS Coordinator, Dr. Stan Bruntz, APHIS VS STAS at: E-mail stanley.d.bruntz@aphis.usda.gov or phone (970) 494-7246.*

National List of Reportable Animal Diseases (NLRAD) National Animal Health Reporting System (NAHRS)

Part I - Definitions

Aquaculture (OIE)	means the farming of aquatic animals with some sort of intervention in the rearing process to enhance production, such as regular stocking, feeding, protection from predators, etc.
Aquatic animals (OIE)	means all life stages (including eggs and gametes) of fish, molluscs, crustaceans and amphibians originating from aquaculture establishments or removed from the wild, for farming purposes, for release into the environment, for human consumption or for ornamental purposes.
Livestock	livestock are domestic species of cattle, sheep, swine, goats, llamas, alpacas, vicunas or equidae that are maintained in captivity for the production of meat and other animal products, for sport or for exhibition.
Poultry (OIE)	<p>means all domesticated birds, including backyard poultry, used for the production of meat or eggs for consumption, for the production of other commercial products, for restocking supplies of game, or for breeding these categories of birds, as well as fighting cocks used for any purpose.</p> <p>Birds that are kept in captivity for any reason other than those reasons referred to in the preceding paragraph, including those that are kept for shows, races, exhibitions, competitions or for breeding or selling these categories of birds as well as pet birds, are not considered to be poultry</p> <p>.</p>
Confirmed Disease	Occurrence of the disease has been identified with a high level of certainty (at presumptive or definitive level). Disease confirmed utilizing NLRAD-NAHRS reporting criteria for the disease, which may include references to compatible clinical signs and the specified standard of laboratory testing. The reporting criteria are considered guidelines and additional testing/tests or epidemiological information can be utilized in determining 'confirmed disease'.
OIE Reportable Diseases	Those diseases designated by the World Organization for Animal Health (OIE) as being: transmissible diseases which have the potential for significant spread, irrespective of national borders, which are of serious socio-economic or public health consequence and which are of major importance in the international trade of animals and animal products.

Sources of Credible Information

Sources of credible information on the occurrence of confirmed cases of disease in a state include State, Federal, University and Private/Commercial laboratories, State and Federal animal health officials and State/Federal accredited private veterinarians.

Part II - Recommended Procedures

A. Authority to Require Reporting

The Animal Health Protection Act, CFR regulations, and State authority provide for cooperative (State/Federal) control and eradication of livestock and poultry diseases, the regulation of interstate transportation of animals (including poultry) and their products, and the regulation of the import and export of animals (including poultry) and their products. Authority for zoonoses falls under the Department of Health and Human Services' (DHHS) Centers for Disease Control and Prevention (CDC).

The USDA APHIS Veterinary Services is in the process of developing authority to require reporting for those diseases listed on the U.S. National List of Reportable Animal Diseases (NLRAD).

B. Reporting Process

The Chief Animal Health Official, or designate, in each state will utilize sources of credible information to compile a monthly report on the occurrence of confirmed cases of U.S. NLRAD listed diseases. They will determine if the reporting criteria defined for each disease have been met and, if so, will include the occurrence of that disease in their report. If the information available does not satisfy the definitive reporting criteria, reporting the occurrence of that disease will be at the discretion of the State Chief Animal Health Official, or designate. Since it is recognized that testing technology and other considerations may change rapidly, a State Chief Animal Health Official, or designate, may choose to report the presence of a disease in their state based on presumptive criteria which are different from the definitive criteria but they must report the presence of a disease when the information available meets the definitive criteria for reporting that disease. This report will be submitted to the USDA:APHIS:VS:Science, Technology and Analysis Services (STAS), if possible, by the 20th day of each month.

F. Appropriate Use of NAHRS Data

The data collected in the NLRAD-NAHRS are currently largely qualitative in nature since they are based primarily on reporting the presence of a disease in a state or states for any one month. The qualitative nature of the information should be taken into account when analyzing the data.

Part III - Reporting Criteria (currently in process of review and update)

The following disease reporting criteria are specified for each disease by species.

Reporting criteria for each disease include both the specified standard of laboratory testing and any additional epidemiologic investigation specified. Reporting of all diseases foreign to the United States requires the concurrence of both the Chief State Animal Health Official and the USDA. The primary standard for laboratory testing of OIE-listed diseases is the *Office International des Epizooties Manual of Standards for Diagnostic Tests and Vaccines*, referred to as the OIE Manual, <http://www.oie.int/en/international-standard-setting/terrestrial-manual/access-online/>. For Avian diseases, the *American Association of Avian Pathologists' Laboratory Manual for the Isolation and Identification of Avian Pathogens*, referred to as the AAAP Manual, is also acceptable. For Aquaculture diseases, the *American Fisheries Society—Fish Health Section (AFS-FHS) Blue Books*, referred to as the AFS-FHS Blue Book, is also acceptable.

Abbreviations used in the following criteria include:

CF - complement fixation test
ELISA - enzyme-linked immunosorbent assay
cELISA - competitive inhibition ELISA
SA-ELISA - synthetic antigen ELISA
FA - fluorescent antibody test
HI - hemagglutination inhibition test
IFA - indirect fluorescent antibody test
IHC - immunohistochemistry
PCR - polymerase chain reaction method
SN - serum neutralization or virus neutralization test

MULTIPLE SPECIES DISEASES

2001 Akabane (congenital arthrogryposis – hydranencephalaly syndrome)

Standard for laboratory Testing:

Akabane Fact Sheet:

<http://www.usaha.org/Portals/6/Publications/FAD.pdf>

<http://www.cfsph.iastate.edu/Factsheets/pdfs/akabane.pdf>

Reporting Criteria:

This disease is a foreign animal disease for the U. S. A. Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

B051 Anthrax (*Bacillus anthracis*)

Standard for Laboratory Testing:

OIE Manual, Ch. 2.1.1.

Reporting Criteria:

Presumptive diagnosis: is based on compatible clinical signs and demonstration of typical *Bacillus anthracis* organisms on direct microscopic examination of blood smears or antibody detection.

Definitive diagnosis: requires isolation and identification of the organism (culture, PCR, or FA).

B052 Aujeszky's Disease (Pseudorabies)

Standard for Laboratory Testing: USDA Pseudorabies Program Standards, https://www.aphis.usda.gov/animal_health/animal_diseases/pseudorabies/downloads/program_stds.pdf ;
OIE Manual, Ch. 2.1.2,
Reporting Criteria: Definitive diagnosis is based on the results of USDA-approved serologic tests or virus isolation and identification and concurrence of the State Chief Animal Health Official and USDA.

A090 Bluetongue

Standard for Laboratory Testing: OIE Manual, Ch. 2.1.3.
Reporting Criteria: *Presumptive diagnosis:* is based on compatible clinical signs plus positive serology (cELISA or SN).
Definitive diagnosis: requires virus isolation and characterization.

B103 Bovine Brucellosis (*Brucella abortus*)

Standard for Laboratory Testing: USDA Standard Operating Procedures for Submission and Testing of Brucellosis Serological Specimens, https://www.aphis.usda.gov/animal_health/animal_diseases/brucellosis/downloads/aphis_approved_br_sero_labs_sop.pdf
OIE Manual, Ch. 2.4.3.
Reporting Criteria: Definitive diagnosis is based on the results of USDA-approved tests and concurrence of the State Chief Animal Health Official and USDA.

B152 Caprine and Ovine Brucellosis (*B. melitensis*)

Standard for Laboratory Testing: OIE Manual, Ch. 2.7.2.
Reporting Criteria: Presumptive diagnosis may be based on serology. Definitive diagnosis requires isolation and identification of the *Brucella* organism. Determination of a case is made following consultation among the USDA Brucellosis Staff, the State Chief Animal Health Official and the USDA.

B253 Porcine Brucellosis (*Brucella suis*)

Standard for Laboratory Testing: USDA Swine Brucellosis, https://www.aphis.usda.gov/animal_health/animal_dis_spec/swine/downloads/sbruumr.pdf
OIE Manual, Ch. 2.8.5.
Reporting Criteria: Definitive diagnosis is based on the results of USDA-approved tests and concurrence of the State Chief Animal Health Official and USDA.

N156 Chronic Wasting Disease (CWD)

Standard for Laboratory Testing: USDA Chronic Wasting Disease https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/animal-disease-information/sa_alternate_livestock/sa_cervid_health/sa_cwd/ct_cwd_index
Reporting Criteria: http://www.nwhc.usgs.gov/disease_information/chronic_wasting_disease/

1001 Crimean Congo hemorrhagic fever

Standard for Laboratory Testing: OIE Manual 2.1.3b.
Reporting Criteria: This disease is a foreign animal disease for the U. S. A.
Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

**B053 Echinococcosis/Hydatidosis
(E. granulosus, E. multilocularis, E. oligarthrus,
E. vogeli and E. shiquicus.)**

Standard for Laboratory Testing: OIE Manual, Ch. 2.1.4.
Reporting Criteria: In the intermediate host, diagnosis depends on the detection of the larval cyst form, which can occur in almost any organ, but particularly in the liver and lungs. The diagnosis of echinococcosis in dogs or other carnivores requires the demonstration of the adult cestodes of Echinococcus spp. in their faeces or the small intestine or the detection of specific coproantigens or coproDNA.

**N158 Epizootic hemorrhagic disease
(EHD)**

Standard for Laboratory Testing: OIE Manual, Ch. 2.1.4b
Reporting Criteria: *Presumptive diagnosis:* compatible clinical signs and positive serology (c-ELISA, VN, (AGID-unable to distinguish between Ab to EHDV and BTV))
Definitive diagnosis: Identification of the agent – VI, RT-PCR, and sandwich enzyme-linked immunosorbent assays (ELISAs)

A010 Foot and Mouth Disease (FMD)

Standard for Laboratory Testing: OIE Manual, Ch. 2.1.5.
Reporting Criteria: This disease is a foreign animal disease for the U. S. A.
Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

B055 Heartwater (*Cowdria ruminantium*)

Standard for Laboratory Testing: OIE Manual, Ch. 2.1.6.
Reporting Criteria: This disease is a foreign animal disease for the U. S. A.
Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

B212 Japanese Encephalitis

Standard for Laboratory Testing: OIE Manual, Ch. 2.1.7.
Reporting Criteria: This disease is a foreign animal disease for the U. S. A.
Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

C613 Melioidosis (*Burkholderia pseudomallei*)

Standard for Laboratory Testing: Melioidosis Fact Sheet:
<http://www.cfsph.iastate.edu/Factsheets/pdfs/melioidosis.pdf>
Reporting Criteria: Rare occurrence in the U.S.A. Treated as a foreign animal disease. Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

B060-B061 New and Old World Screwworm (*Cochliomya (Callitroga) hominivorax Chrysomya bezziana*)

Standard for Laboratory Testing: OIE Manual, Ch. 2.1.10.
Reporting Criteria: This disease is a foreign animal disease for the U. S. A. Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

B059 Paratuberculosis (Johne's Disease, *Mycobacterium paratuberculosis*)

Standard for Laboratory Testing: USDA Johne's Voluntary Program:
https://www.aphis.usda.gov/animal_health/animal_diseases/johnes/downloads/johnes-ups.pdf
OIE Manual, Ch. 2.1.11.
Reporting Criteria: *Presumptive diagnosis*: is based on compatible clinical signs plus compatible histopathology and/or serology (AGID) or demonstration of acid-fast organisms in lesions.
Definitive diagnosis: requires demonstration of *Mycobacterium paratuberculosis* by culture or PCR/DNA probe.

B057 Q-Fever (*Coxiella burnetti*)

Standard for Laboratory Testing: OIE Manual, Ch. 2.1.12.
Reporting Criteria: *Presumptive diagnosis* is based on compatible clinical signs plus histopathology and/or positive serology (CF, IFA or ELISA).
Definitive diagnosis requires isolation and identification of *Coxiella burnetti* (culture, PCR, IHC).

B058 Rabies

Standard for Laboratory Testing: OIE Manual, Ch. 2.1.13.
Centers for Disease Control and Prevention,
<http://www.cdc.gov/rabies/diagnosis/index.html>
Reporting Criteria: Diagnosis may be based on either a specific FA test (with or without mouse inoculation) or typical histopathologic lesions (Negri bodies).

A080 Rift Valley Fever

Standard for Laboratory Testing: OIE Manual, Ch. 2.1.14.
Reporting Criteria: This disease is a foreign animal disease for the U. S. A. Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

A040 Rinderpest

Standard for Laboratory Testing: OIE Manual, Ch. 2.1.15.
Reporting Criteria: This disease is a foreign animal disease for the U. S. A. Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

B062 Trichinellosis (*Trichinella spiralis*)

Standard for Laboratory Testing: OIE Manual, Ch. 2.1.16.
Reporting Criteria: *Presumptive diagnosis* may be based on serologic testing (ELISA).
Definitive diagnosis requires direct visualization of *Trichinella spiralis* using either the trichinoscope method (sensitivity?) or the digestion method.

1005 Tularemia (*Francisella tularensis*)

Standard for Laboratory Testing:

OIE Manual, Ch. 2.1.18

Reporting Criteria:

Presumptive diagnosis is based on serological testing.
Definitive diagnosis requires the isolation and identification of *Francisella tularensis*.

A020 Vesicular Stomatitis (VS)

Standard for Laboratory Testing:

OIE Manual, Ch. 2.1.19.

USDA National Veterinary Services Laboratories (NVSL),
https://www.aphis.usda.gov/animal_health/lab_info_services/downloads/VSVmovementtesting.pdf

Reporting Criteria:

In livestock, other than equine, this disease is treated as a foreign animal disease for the U.S. A. Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

1006 West Nile fever/encephalitis

Standard for Laboratory Testing:

OIE Manual, Ch. 2.1.20

USDA Case Definition:

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

Reporting Criteria:

Presumptive positive equine case: A suspect case that has neutralizing serum antibodies as detected by PRNT without history of prior WNV vaccination.
Confirmed positive equine case: isolation of WNV from or demonstration of specific viral antigen or genomic sequences in tissue, blood cerebrospinal fluid, or other body fluid; OR detection of IgM antibody against WNV by IgM-capture ELISA in serum (dilution dependent upon specific test used) or cerebrospinal fluid (at 1:2 or greater dilution); OR an associated fourfold or greater change in IgG-capture ELISA* or plaque-reduction neutralization test (PRNT) antibody titer to WNV in appropriately timed, paired serum specimens from an equid that is unvaccinated against WNV; OR, positive immunohistochemistry for WNV viral antigen in tissue.
Reporting through NLRAD-NAHRS and CDC ArboNET.

BOVINE

B101 Bovine Anaplasmosis (*Anaplasma marginale*, *A. centrale*)

Standard for Laboratory Testing:

OIE Manual, Ch. 2.4.1.

Reporting Criteria:

Presumptive diagnosis: is based on compatible clinical signs and positive serology (CF, IFA or ELISA).
Definitive diagnosis: identification of the causative organism on Giemsa or Wright's-Giemsa stained blood smear or PCR or nested PCR.
Carrier animals – identification of these animals depends on the detection of specific antibodies using serological tests or of rickettsial DNA using molecular amplification techniques.

B102 Bovine Babesiosis (*Babesia bovis*, *B. bigemina*)

Standard for Laboratory Testing: OIE Manual, Ch. 2.4.2.
Reporting Criteria: This disease is a foreign animal disease for the U. S. A. Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

B104 Bovine Genital Campylobacteriosis (*Campylobacter fetus* subsp. *venerealis* or *fetus*)

Standard for Laboratory Testing: OIE Manual, Ch. 2.4.5.
Reporting Criteria: *Presumptive diagnosis*: is based on serological herd testing (ELISA)
Definitive diagnosis requires isolation and identification of *Campylobacter fetus* ssp. Confirmation of the isolate and discrimination between the subspecies can be performed by biochemical or molecular methods. IFA can be applied to identify the organism directly, but it will not differentiate between the different subspecies.

B115 Bovine Spongiform Encephalopathy

Standard for Laboratory Testing: OIE Manual, Ch. 2.4.6 : USDA BSE:
https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/animal-disease-information/cattle-disease-information/sa_bse/ct_about_bse
Reporting Criteria: This disease is a foreign animal disease for the U. S. A. Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

B105 Bovine Tuberculosis (*Mycobacterium bovis*)

Standard for Laboratory Testing: OIE Manual, Ch. 2.4.7.; USDA Tuberculosis:
https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/animal-disease-information/cattle-disease-information/sa_tuberculosis/ct_bovine_tuberculosis_disease_information
Reporting Criteria: Isolation and identification of *Mycobacterium bovis* is required for a definitive diagnosis. Determination of a case is made following consultation among the USDA Tuberculosis Staff, the State Chief Animal Health Official and the USDA.

N117 Bovine Viral Diarrhea

Standard for Laboratory Testing: OIE Manual, Ch 2.4.8
Reporting Criteria: *Presumptive diagnosis*: can be based on demonstrating seroconversion using sequential paired samples (ELISA or VN) or on compatible macroscopic and microscopic lesions.
Definitive diagnosis: requires demonstration of the virus by PCR, IHC, VI or antigen capture ELISA.
Persistent infections: antigen detection ELISAs and real-time RT-PCR assays; VI or IHC are also utilized.

A060 Contagious Bovine Pleuropneumonia (*Mycoplasma mycoides mycoides*)

Standard for Laboratory Testing: OIE Manual, Ch. 2.4.9.
Reporting Criteria: This disease is a foreign animal disease for the U. S. A. Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

B108 Enzootic Bovine Leukosis (EBL)- (bovine leukaemia virus-BLV)

Standard for Laboratory Testing: OIE Manual, Ch. 2.4.11.
Reporting Criteria: *Presumptive diagnosis:* can be based on compatible macroscopic and microscopic lesions in adult cattle.
Definitive diagnosis: requires positive serology (AGID, ELISA) or demonstration of the virus by PCR, IHC, or VI.

B109 Hemorrhagic Septicemia (*Pasteurella multocida*, serotypes B/Asian or E/African)

Standard for Laboratory Testing: OIE Manual, Ch. 2.4.12.
Reporting Criteria: Definitive diagnosis requires isolation and identification of *Pasteurella multocida* and **serotyping as either B/Asian or E/African serotypes**. This disease is a foreign animal disease for the U.S.A. Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

B110 Infectious Bovine Rhinotracheitis/Infectious Pustular Vulvovaginitis (IBR/IPV) (Bovine herpesvirus 1, BoHV-1)

Standard for Laboratory Testing: OIE Manual, Ch. 2.4.13.
Reporting Criteria: *Presumptive diagnosis:* compatible clinical signs, pathological and epidemiological findings in addition can be based on serology (ELISA or virus neutralization) in unvaccinated animals or compatible macroscopic and microscopic lesions.
Definitive diagnosis: requires detection of the virus (BHV-1) by virus isolation, IFA, immunohistochemistry, *in situ* hybridization or PCR.

A070 Lumpy Skin Disease

Standard for Laboratory Testing: OIE Manual, Ch. 2.4.14.
Reporting Criteria: This disease is a foreign animal disease for the U. S. A. Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

B114 Malignant Catarrhal Fever (Specify if Sheep Form-ovine herpesvirus-2 (OvHV-2) or Bovine Malignant Catarrh, Wildebeest associated-alcelaphine herpesvirus-1, AIHV-1)

Standard for Laboratory Testing: OIE Manual, Ch. 2.4.15;
Reporting Criteria: *Presumptive diagnosis:* can be made based on serology (c-ELISA, SN or IFA) and compatible clinical signs and/or characteristic histological lesions.
Definitive diagnosis: requires demonstration of the agent (virus isolation or PCR testing). The OvHV-2 agent has never been isolated in culture.

B111 Theileriosis (*Theileria annulata*, *T. parva*)

Standard for Laboratory Testing: OIE Manual, Ch. 2.4.16.
Reporting Criteria: This disease is a foreign animal disease for the U. S. A. Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

B112 Trichomonosis (*Tritrichomonas (Trichomonas) foetus*)

Standard for Laboratory Testing: OIE Manual, Ch. 2.4.17.
Reporting Criteria: A tentative diagnosis of trichomonosis as a cause of reproductive failure in a herd is based on the clinical history, signs of early abortion, repeated returns to service, or irregular oestrous cycles.
Definitive diagnosis: made by identification of *Tritrichomonas (Trichomonas) foetus* by either direct microscopic exam, *in vitro* cultivation or PCR testing.

B113 Trypanosomosis (Tse-tse bone, *Trypanosoma congolense*, *T. vivax*, *T. brucei brucei*)

Standard for Laboratory Testing: OIE Manual, Ch. 2.4.18.
Reporting Criteria: This disease is a foreign animal disease for the U. S. A. Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

CAPRINE/OVINE

B153 Caprine Arthritis/Encephalitis

Standard for Laboratory Testing: OIE Manual, Ch. 2.7.3/4.
Reporting Criteria: *Presumptive diagnosis:* Compatible clinical signs plus positive serology (AGID or ELISA) or compatible clinical signs and histopathology at necropsy.
Definitive diagnosis: Isolation and characterization of MVV or CAEV is not normally attempted for routine diagnostic purposes. VI or PCR to demonstrate presence of viral antigen in tissues may be used to further substantiate the diagnosis.

B154 Contagious Agalactia (*Mycoplasma agalactiae (Ma)* – (the classical disease agent of contagious agalactia), *M. capricolum* subsp. *capricolum (Mcc)*, *M. putrefaciens*, *M. mycoides* subsp. *capri (Mmc)* – The OIE added the other etiologic agents in addition to *Ma*, as they caused similar clinical disease, especially in goats, (mastitis, polyarthritis and keratoconjunctivitis)- in contagious agalactia syndrome.

Sporadic cases in the United States, primarily *M. capricolum* subsp. *capricolum (Mcc)*, *M. putrefaciens*, *M. mycoides* subsp. *capri (Mmc)* in goats.

Standard for Laboratory Testing: OIE Manual, Ch. 2.7.5.; Gray Book:
<http://www.usaha.org/Portals/6/Publications/FAD.pdf>
Reporting Criteria: *Presumptive diagnosis:* Compatible clinical signs plus positive serology (CF, HA, IFA, ELISA)
Definitive diagnosis: is based on isolation and identification of any one of the causative organisms: *Mycoplasma agalactiae*, *M. capricolum* ssp. *capricolum*, *M. putrefaciens*, *M. mycoides* ssp. *capri*.. Isolates can be identified with biochemical tests and serology. PCR – increasingly used to identify isolates; should be confirmed by isolation and identification of the mycoplasma.

B155 Contagious Caprine Pleuropneumonia (*Mycoplasma capricolum capripneumoniae*)

Standard for Laboratory Testing: OIE Manual, Ch. 2.7.6.
Reporting Criteria: This disease is a foreign animal disease for the U. S. A. Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

B156 Enzootic Abortion of Ewes (Ovine psittacosis, *Chlamydophila abortus*)

Standard for Laboratory Testing: OIE Manual, Ch. 2.7.7.
Reporting Criteria: *Presumptive diagnosis:* compatible clinical history plus compatible histopathology or serology (CF)
Definitive diagnosis: isolation and identification of *Chlamydophila abortus*, PCR, or Chlamydial antigen detection (ELISA, IH, FA.)

B161 Maedi-Visna/Ovine Progressive Pneumonia (Maedi – ‘labored breathing’; visna – ‘shrinkage or wasting’)

Standard for Laboratory Testing: OIE Manual, Ch. 2.7.3/4.
Reporting Criteria: *Presumptive diagnosis:* compatible clinical signs plus positive serology (AGID or ELISA) or compatible clinical signs and histopathology at necropsy.
Definitive diagnosis: Isolation and characterization of MVV or CAEV is not normally attempted for routine diagnostic purposes. VI or PCR to demonstrate presence of viral antigen in tissues may be used to further substantiate the diagnosis.

B158 Nairobi Sheep Disease

Standard for Laboratory Testing: OIE Manual, Ch. 2.7.8.
Reporting Criteria: This disease is a foreign animal disease for the U. S. A. Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

B151 Ovine Epididymitis (*Brucella ovis* infection)

Standard for Laboratory Testing: OIE Manual, Ch. 2.7.9.
Reporting Criteria: *Presumptive diagnosis:* compatible clinical signs and semen or smears staining techniques.
Definitive diagnosis: isolation and identification of *Brucella ovis*; PCR; or antigen identification (CF, AGID, I-ELISA)

A050 Peste des Petits Ruminants

Standard for Laboratory Testing: OIE Manual, Ch. 2.7.11.
Reporting Criteria: This disease is a foreign animal disease for the U. S. A. Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

B159 Salmonellosis (*Salmonella abortusovis*;))

Standard for Laboratory Testing: OIE Manual, Ch.2.7.12. (Ch. 2.9.9.)

Reporting Criteria: http://www.cfsph.iastate.edu/Factsheets/pdfs/salmonella_abortusovis.pdf

Presumptive diagnosis: compatible clinical signs (abortion, stillbirth, etc.) and direct smear identification (short gram-negative rods). Serology can be helpful in diagnosis (serum agglutination test, HI, CF, IFA, ELISA)
Definitive diagnosis: requires isolation and identification of the causative agent, *Salmonella abortusovis*. Serology can be helpful in diagnosis (serum agglutination test, HI, CF, IFA, ELISA)

B160 Scrapie

Standard for Laboratory Testing: OIE Manual, Ch. 2.7.13.; USDA Scrapie Eradication Program: https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/animal-disease-information/sheep-and-goat-health/national-scrapie-eradication-program/ct_scrapie_home

Reporting Criteria: Diagnosis is based on clinical signs plus compatible histopathology or immunohistochemistry and concurrence of the State Chief Animal Health Official and the USDA.

A100 Sheep Pox and Goat Pox

Standard for Laboratory Testing:
Reporting Criteria:

OIE Manual, Ch. 2.7.14
This disease is a foreign animal disease for the U. S. A.
Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

C706 Mange (*Sarcoptes scabiei var ovis*, *Chorioptes bovis*, *Psoroptes ovis* (eliminated from sheep in the U.S., *Psoregates ovis*)

Standard for Laboratory Testing: OIE Manual, Ch.2.9.8.
<http://www.cfsph.iastate.edu/Factsheets/pdfs/acariasis.pdf>

Reporting Criteria: Acariasis is usually diagnosed by identifying the mites.

EQUINE**A110 African Horse Sickness**

Standard for Laboratory Testing:
Reporting Criteria:

OIE Manual, Ch. 2.5.1.
This disease is a foreign animal disease for the U. S. A.
Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

B201 Contagious Equine Metritis (*Taylorella equigenitalis*)

Standard for Laboratory Testing: OIE Manual, Ch. 2.5.2.;
https://www.aphis.usda.gov/publications/animal_health/content/printable_version/fs_CEMrev09.pdf

Reporting Criteria: This disease is a foreign animal disease for the U.S.A.
Definitive diagnosis requires isolation and identification of *Taylorella equigenitalis* and the concurrence of the USDA and State Chief Animal Health Official.

B202 Dourine (*Trypanosoma equiperdum*)

Standard for Laboratory Testing:
Reporting Criteria:

OIE Manual, Ch. 2.5.3.
This disease is a foreign animal disease for the U. S. A.
Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

B204 Equine Encephalomyelitis (Eastern {EEE} or Western {WEE})

Standard for Laboratory Testing: OIE Manual, Ch. 2.5.5.; USDA EEE Case Definition: https://www.aphis.usda.gov/vs/nahss/equine/ee/case_definition_eastern_equine_encephalitis_01_18_11.pdf

Reporting Criteria: *Presumptive diagnosis:* may be made based on compatible clinical signs and antibody in non vaccinated animal (PRNT; or ELISA detection of IGM)
Definitive diagnosis: requires virus Isolation (VI); RT-PCR; positive immunohistochemistry for EEE or WEE virus antigen; or serology with a fourfold or greater change in antibody titer in paired serum samples collected 10-14 days apart (unvaccinated or known vaccination history).

B205 Equine Infectious Anemia (EIA)

Standard for Laboratory Testing: OIE Manual, Ch. 2.5.6.; USDA: https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/animal-disease-information/horse-disease-information/equine-infectious-anemia/ct_eia_index

Reporting Criteria: *Presumptive diagnosis:* may be based on serology using a USDA-approved test (SA-ELISA II, c-ELISA, Vira-CHEK™ ELISA, or AGID) as outlined in the EIA Uniform Methods and Rules.
Definitive diagnosis: requires confirmation testing with a USDA-approved AGID test, an epidemiologic investigation by a State or Federal Veterinarian and the concurrence of the USDA and the State Chief Animal Health Official.

B206 Equine Influenza (Virus Type A – H7N7 formerly equi-1, and H3N8, formerly equi-2)

Standard for Laboratory Testing: OIE Manual, Ch. 2.5.7.

Reporting Criteria: *Presumptive diagnosis:* may be based on compatible clinical signs plus serology (HI).
Definitive diagnosis: is based on demonstration of the agent (VI, antigen capture ELISA, RT-PCR); or paired serum samples (HI)

B207 Equine Piroplasmiasis (Babesiosis, *Babesia (Piroplasma) equi*, *B. caballi*)

Standard for Laboratory Testing: OIE Manual, Ch. 2.5.8.

Reporting Criteria: *Presumptive diagnosis:* Infections demonstrated through serologic confirmation (IFAT, C-ELISA) (Positive CF and IFAT results indicate a more acute infection)
Definitive diagnosis: Demonstration of the parasite in blood or organ smears; PCR

B208 Equine Rhinopneumonitis (EHV-1)

Standard for Laboratory Testing: OIE Manual, Ch. 2.5.9.

Reporting Criteria: Presumptive diagnosis based on compatible clinical signs, histologic lesions (inclusion bodies) and/or a positive FA. Definitive diagnosis requires either virus isolation and/or PCR detection of the virus, or a 4X rise in titre in paired serum samples on the SN test.

B208a EHV-1 Equine Herpesvirus Myeloencephalopathy (EHM)

Standard for Laboratory Testing:
Reporting Criteria:

A case of equine herpesvirus myeloencephalopathy (EHM) is defined as a horse exhibiting signs of central nervous system (CNS) dysfunction, most commonly including posterior incoordination, weakness, and bladder atony. Additionally, the horse tests positive for EHV-1 virus by virus isolation and/or polymerase chain reaction (PCR) assay on nasal swab or blood (buffy coat). In cases of sudden death or where the horse dies as a result of neurological complications, the post-mortem lesions are consistent with those of myeloencephalopathy and EHV1 has been isolated, detected by PCR, or demonstrated by immunohistochemical examination of the CNS.

B211 Equine Viral Arteritis (EVA)

Standard for Laboratory Testing:

OIE Manual, Ch. 2.5.10.; USDA

https://www.aphis.usda.gov/animal_health/animal_diseases/eva/downloads/eva-umr.pdf

Reporting Criteria:

Presumptive diagnosis may be based on compatible clinical signs plus serology (SN titer of 1:4 or greater) as outlined in the EVA Uniform Methods and Rules. Definitive diagnosis requires demonstration of the agent (virus isolation) RT-PCR, an epidemiologic investigation by a State or Federal Veterinarian and the concurrence of the State Chief Animal Health Official and USDA.

B209 Glanders (*Pseudomonas mallei*)

Standard for Laboratory Testing:
Reporting Criteria:

OIE Manual, Ch. 2.5.11.

This disease is a foreign animal disease for the U. S. A. Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

B215 Surra (*Trypanosoma evansi*)

Standard for Laboratory Testing:
Reporting Criteria:

OIE Manual, Ch. 2.1.17.

This disease is a foreign animal disease for the U. S. A. Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

B216 Venezuelan Equine Encephalomyelitis (VEE)

Standard for Laboratory Testing:
Reporting Criteria:

OIE Manual, Ch. 2.5.13.

This disease is a foreign animal disease for the U. S. A. Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

PORCINE

A120 African Swine Fever

Standard for Laboratory Testing:
Reporting Criteria:

OIE Manual, Ch. 2.8.1.

This disease is a foreign animal disease for the U. S. A. Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

A130 Classical Swine Fever (Hog Cholera)

Standard for Laboratory Testing: OIE Manual, Ch. 2.8.3.
Reporting Criteria: This disease is a foreign animal disease for the U. S. A. Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

Nipah virus encephalitis

Standard for Laboratory Testing: OIE Manual, Ch. 2.8.4.
Reporting Criteria: This disease is a foreign animal disease for the U. S. A. Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

B252 Porcine Cysticercosis (*Cysticercus cellulosae*)

Standard for Laboratory Testing: OIE Manual, Ch. 2.8.6.
Reporting Criteria: Demonstration of the *Taenia solium* metacestodes (*Cysticercus cellulosae*) in striated muscle.

B257 Porcine Reproductive and Respiratory Syndrome (PRRS)

Standard for Laboratory Testing: OIE Manual, Ch. 2.8.7.
Reporting Criteria: Presumptive diagnosis is based on seroconversion (USDA-approved ELISA, IFA or SN tests) in non-vaccinated animals. Definitive diagnosis requires typical histological lesions and virus isolation characterization in herds using modified-live vaccines.

A030 Swine Vesicular Disease

Standard for Laboratory Testing: OIE Manual, Ch. 2.8.9.
Reporting Criteria: This disease is a foreign animal disease for the U. S. A. Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

B254 Transmissible Gastroenteritis (TGE)

Standard for Laboratory Testing: OIE Manual, Ch. 2.8.11.
Reporting Criteria: Diagnosis is based on clinical signs and typical histopathological lesions and/or antigen detection using either FA testing or IHC.

C801 Swine erysipelas (*Erysipelothrix rhusiopathiae*)

Standard for Laboratory Testing:
Reporting Criteria:

2006 Vesicular exanthema

Standard for Laboratory Testing:
Reporting Criteria:

2010 Swine Enteric Coronavirus Disease (SECD) (Porcine epidemic diarrhea virus-PEDV; Porcine delta coronavirus (PDCoV)

Standard for Laboratory Testing:
Reporting Criteria

AVIAN (POULTRY)

B312 Avian Chlamydiosis (Ornithosis and Psittacosis, *Chlamydia psittaci*)

Standard for Laboratory Testing: OIE Manual, Ch. 2.7.4. or AAAP Manual, Ch. 15.
Reporting Criteria: Presumptive diagnosis may be made based on compatible clinical signs plus serology (CF, ELISA), immunofluorescence, or immunohistochemical examination of swabs or tissues. Isolation and identification of *Chlamydia psittaci* is required for definitive diagnosis.

B301 Avian Infectious Bronchitis

Standard for Laboratory Testing: OIE Manual, Ch. 2.7.6. or AAAP Manual, Ch. 29.
Reporting Criteria: Presumptive diagnosis of clinical disease caused by wild-type viruses can be made on the basis of compatible clinical signs or lesions plus serology but a definitive diagnosis requires isolation of a non-vaccine strain of the virus by molecular methods.

B302 Avian Infectious Laryngotracheitis (ILT)

Standard for Laboratory Testing: OIE Manual, Ch. 2.7.7. or AAAP Manual, Ch. 19.
Reporting Criteria: Clinical disease or lesions compatible with wild-type ILT virus confirmed by either histologic demonstration of intranuclear inclusion bodies or electron microscopic demonstration of typical viral particles and isolation of non-vaccine related virus.

B311 Avian Mycoplasmosis (*Mycoplasma gallisepticum*)

Standard for Laboratory Testing: OIE Manual, Ch. 2.7.3. or AAAP Manual, Ch. 14.
Reporting Criteria: Flocks are monitored using serology (plate agglutination or ELISA confirmed by HI). Isolation and identification of *Mycoplasma gallisepticum* is definitive.

1009 Avian Mycoplasmosis (*Mycoplasma synoviae*)

Standard for Laboratory Testing: AAAP Manual, Ch. 15.
Reporting Criteria: Flocks are monitored using serology (plate agglutination or ELISA confirmed by HI). Isolation and identification of *Mycoplasma synoviae* is definitive.

B304 Duck Virus Hepatitis (DVH)

Standard for Laboratory Testing: OIE Manual, Ch. 2.7.9. or AAAP Manual, Ch. 34.
Reporting Criteria: Diagnosis can be made on the basis of characteristic gross and microscopic lesion and demonstration of the agent.

B308 Fowl Typhoid (*Salmonella gallinarum*)

Standard for Laboratory Testing: OIE Manual, Ch. 2.7.5. or AAAP Manual, Ch. 1, or National Poultry Improvement Plan, USDA:APHIS 91-55-031, April, 1996.
Reporting Criteria: Flocks are monitored by serology (agglutination test). Definitive diagnosis requires compatible clinical signs, isolation, and identification of *Salmonella gallinarum*.

A150 Highly Pathogenic Avian Influenza (Fowl Plague)

Standard for Laboratory Testing: OIE Manual, Ch. 2.1.14.
Reporting Criteria: This disease is a foreign animal disease for the U. S. A. Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

N150I Low Pathogenic Notifiable Avian Influenza (poultry)

Standard for Laboratory Testing: OIE Manual, Ch.2.1.14.
Reporting Criteria: Low Pathogenic Notifiable Avian Influenza are all influenza A viruses of H5 and H7 subtype that are not highly pathogenic notifiable avian influenza viruses. Reporting requires the concurrence of the USDA and the State Chief Animal Health Officer.

B309 Infectious Bursal Disease (Gumboro Disease)

Standard for Laboratory Testing: OIE Manual, Ch. 2.7.1. or AAAP Manual, Ch. 39.
Reporting Criteria: Diagnosis of clinical disease is based on characteristic clinical signs and lesions. Definitive diagnosis requires non-vaccine related virus isolation and serotyping using virus neutralization along with cross protection tests.

A160 (Exotic) Newcastle Disease

Standard for Laboratory Testing: OIE Manual, Ch. 2.1.15.
Reporting Criteria: This disease is a foreign animal disease for the U. S. A. Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

B313 Pullorum Disease (*Salmonella pullorum*)

Standard for Laboratory Testing: OIE Manual, Ch. 2.7.5. or AAAP Manual, Ch. 1, or National Poultry Improvement Plan, USDA:APHIS 91-55-031, April, 1996.
Reporting Criteria: Commercial flocks are monitored by serology (agglutination test). Definitive diagnosis requires compatible clinical signs, isolation, and identification of *Salmonella pullorum*.

1008 Turkey Rhinotracheitis (Avian Pneumovirus infection)

Standard for Laboratory Testing: AAAP Manual, Ch. 31.
Reporting Criteria: Commercial flocks are monitored using serology (ELISA, confirmed by IFA or virus neutralization). Definitive diagnosis requires detection of specific RNA in clinical specimens by RT-PCR or virus isolation of **wild-type virus**, usually in tracheal explants, embryonating eggs, or chick embryo fibroblasts, and identification by virus neutralization and/or electron microscopy or RT-PCR.

AQUACULTURE (OIE Aquatic Manual has case definitions for all OIE-listed aquaculture diseases) <http://www.oie.int/international-standard-setting/aquatic-manual/access-online/>

FISH:

B401 Viral Hemorrhagic Septicemia

Standard for Laboratory Testing:
Reporting Criteria:

OIE Aquatic Manual, Ch. 2.3.10.
U.S Disease Status: Domestic absent / Sporadic (wild species) / limited distribution (Great Lakes)
Definitive diagnosis is based on virus isolation with confirmation and virus identification (IFAT, ELISA, SN or immunological methods); or RT-PCR. Reporting in domestic requires the concurrence of State Chief Animal Health Official and the USDA.

B402 Infectious Pancreatic Necrosis

Standard for Laboratory Testing:
Reporting Criteria:

Presumptive diagnosis: compatible clinical signs, along with histopathology pancreatic lesion or antibodies (ELISA).
Definitive diagnosis: Virus isolation; PCR; or detection of in tissue preparations by specific antibodies (IFA)

N416 Infectious Salmon Anemia (ISA)(HPR-deleted or HPR0)

Standard for Laboratory Testing:
Reporting Criteria:

OIE Aquatic Manual, Ch. 2.3.5
Reporting requires the concurrence of the State Chief Animal Health Official and the USDA.

B404 Spring Viremia of Carp

Standard for Laboratory Testing:
Reporting Criteria:

OIE Diagnostic Manual for Aquatic Animal Diseases, Ch. 2.1.4.
Definitive diagnosis is based on virus isolation with confirmation by SN or immunological methods and the concurrence of State Chief Animal Health Official and the USDA.

B405 Infectious Hematopoietic Necrosis

Standard for Laboratory Testing:
Reporting Criteria:

OIE Aquatic Manual, Ch. 2.3.4.
Presumptive diagnosis: presence of typical, gross clinical signs of the disease in a population of susceptible fish, OR a typical internal histopathological presentation among susceptible species, OR detection of antibodies against IHNV in a susceptible species, OR typical cytopathic effect in cell culture without identification of the agent, OR a single positive result from one of the diagnostic assays ranked (PCR, virus sequencing, ELISA, IFA, SN).
Definitive diagnosis: A confirmed case is defined as a suspect case that has EITHER: 1) produced typical cytopathic effect in cell culture with subsequent identification of the agent by one of the antibody-based or molecular tests (PCR, virus sequencing, ELISA, IFA, SN).

B408 Bacterial Kidney disease (*Renibacterium salmoninarium*)

Standard for Laboratory Testing:
Reporting Criteria:

N412 Viral Encephalopathy and Retinopathy

Standard for Laboratory Testing:
Reporting Criteria:

B413 Epizootic Hematopoietic Necrosis

Standard for Laboratory Testing: OIE Aquatic Manual, Ch. 2.3.1.
Reporting Criteria: This disease is a foreign animal disease for the U. S. A. Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

B415 *Oncorhynchus masou* Virus Disease

Standard for Laboratory Testing: OIE Aquatic Manual, Ch. 2.3.11.
Reporting Criteria: This disease is a foreign animal disease for the U. S. A. Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

N417 Epizootic Ulcerative Syndrome (EUS)(*Apphanomyces invadans*)

Standard for Laboratory Testing: OIE Aquatic Manual, Ch. 2.3.2.
Reporting Criteria: *Definitive diagnosis:* In susceptible species within the known geographical range of infection with *A. invadans*, a confirmed case of infection with *A. invadans* is a positive result by observation of mycotic granulomas in histopathology. *In other host species or outside the known range of A. invadans, confirmation by histopathology and PCR is recommended*

N418 Gyrodactylosis (*Gyrodactylus salaris*)

Standard for Laboratory Testing: OIE Aquatic Manual, Ch. 2.3.3.
Reporting Criteria: This disease is a foreign animal disease for the U. S. A. Reporting requires the concurrence of the USDA and the State Chief Animal Health Official. *Definitive diagnosis:* A molecular identification of *Gyrodactylus* specimen(s) to *G. salaris* (or *G. thymalli*) by sequencing of ITS followed by sequencing and phylogenetic analysis of CO1 to assign the sequence to the nearest known relative is preferred. Trained morphologists can perform morphological identification of *Gyrodactylus* specimen(s) to *G. salaris* based on structures of the attachment organ. However, a morphological diagnosis should be confirmed by molecular tools. A combination of both morphological and molecular methods as described in the OIE chapter is recommended.

N419 Red Sea Bream Iridoviral Disease

Standard for Laboratory Testing: OIE Aquatic Manual, Ch. 2.3.8.
Reporting Criteria: This disease is a foreign animal disease for the U. S. A. Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

N420 Koi Herpesvirus Disease

Standard for Laboratory Testing:

Reporting Criteria:

OIE Aquatic Manual, Ch. 2.3.7.

Presumptive diagnosis: compatible clinical signs, along with histopathology or antibodies / or epidemiological links to KHV confirmed sites.*Definitive diagnosis:* Virus isolation; PCR; or detection of KHV in tissue preparations by specific antibodies against KHV (IFA)**N415 Piscirickettsiosis (*Piscirickettsia salmonis*)**

Standard for Laboratory Testing:

Reporting Criteria:

2002 Whirling Disease (*Myxobolus cerebralis*)

Standard for Laboratory Testing:

Reporting Criteria:

2003 White Sturgeon Iridoviral Disease

Standard for Laboratory Testing:

Reporting Criteria:

2011 Infection with Salmonid Alphavirus

Standard for Laboratory Testing:

Reporting Criteria:

OIE Aquatic Manual, Ch. 2.3.6

This disease is a foreign animal disease for the U. S. A.

Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

Mollusc:**N430 Infection with *Bonamia ostreae***

Standard for Laboratory Testing:

Reporting Criteria:

OIE Aquatic Manual, Ch.2.4.3.

Definition of suspect case:

Any positive result obtained by any diagnostic technique should be considered suspect.

*Definition of confirmed case:*In susceptible species within the known geographical range of infection with *B. ostreae*, a confirmed case of *B. ostreae* is a positive result by tissue imprints, histology or *in-situ* hybridisation combined with a positive result by PCR-RFLP and sequencing or SYBR® Green real-time PCR.**N431 Infection with *Bonamia exitiosa/roughleyi***

Standard for Laboratory Testing:

Reporting Criteria:

OIE Aquatic Manual, Ch.2.4.2.

Definition of suspect case:

Any positive result obtained by any diagnostic technique should be considered suspect.

*Definition of confirmed case:*In susceptible species within the known geographical range of infection with *B. exitiosa*, a confirmed case of *B. exitiosa* is a positive result by tissue imprints, histology or *in situ* hybridisation combined with a positive result by PCR-RFLP and sequencing.

In other host species or outside the known range of *B. exitiosa*, TEM confirmation is recommended. However, this technique is only suitable for samples that have high intensities of infection.

N432 Infection with *Marteilia refringens*

Standard for Laboratory Testing: OIE Aquatic Manual, Ch. 2.4.4
Reporting Criteria: This disease is a foreign animal disease for the U. S. A. Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

N433 Infection with *Perkinsus marinus*

Standard for Laboratory Testing: OIE Aquatic Manual, Ch.2.4.6.
Reporting Criteria: *Definition of suspect case:*
In known susceptible species, within the known geographical range of *P. marinus*, a suspect case of infection with *P. marinus* is a positive result by any one of the following methods: haemolymph smear, histology, fluid thioglycollate culture or PCR. In other host species, or outside the known range of *P. marinus*, a suspect case is a positive result by PCR. Such cases should be submitted to the OIE Reference Laboratory for confirmation.
Definition of confirmed case:
A confirmed case of *P. marinus* is a positive result by haemolymph smear, histology or fluid thioglycollate culture combined with a positive result with PCR or ISH. Sequencing of the ITS region is recommended as a final step for a confirmatory diagnosis.

N434 Infection with *Perkinsus olseni/atlanticus*

Standard for Laboratory Testing: OIE Aquatic Manual, Ch. 2.4.7.
Reporting Criteria: This disease is a foreign animal disease for the U. S. A. Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

N435 Infection with *Xenohaliotis californiensis*

Standard for Laboratory Testing: OIE Aquatic Manual, Ch.2.4.8.
Reporting Criteria: *Definition of suspect case:*
A suspect case of *X. californiensis* infection and associated clinical disease (withering syndrome) may include the observation of gross clinical signs (weakness, lethargy, anorexia, pedal atrophy, and mottled digestive gland) and mortality in association with warm water conditions, particularly within the known geographical range of this disease. In farmed abalones, anorexia may be a first sign of disease. These clinical signs in combination with either microscopic observation of an atrophied foot muscle, inclusion bodies in gastrointestinal epithelia, or PCR evidence (without sequence confirmation) also represent a suspect case.
Definition of confirmed case;
Confirmation of *X. californiensis* infection relies on observation of the agent using histology and PCR with sequence analysis, or ISH. Gross signs and tissue imprints alone cannot be used for confirmatory diagnosis and must be supported by histology, ISH or PCR with sequence analyses.

Confirmation of withering syndrome relies on both the presence of the agent and the presence of microscopic signs of the disease. As a minimum, digestive gland metaplasia or degeneration, as evidenced on histological examination, must accompany *X. californiensis* infection to diagnose clinical withering syndrome.

N436 Infection with abalone herpes virus

Standard for Laboratory Testing:

OIE Aquatic Manual, Ch. 2.4.1

Reporting Criteria:

This disease is a foreign animal disease for the U. S. A. Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

N463 Abalone viral mortality

Standard for Laboratory Testing:

This disease is a foreign animal disease for the U. S. A.

Reporting Criteria:

Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

2004 Infection with *Marteilia chungmuensis*

Standard for Laboratory Testing:

Reporting Criteria:

2005 Infection with *Marteilia sydneyi*

Standard for Laboratory Testing:

Reporting Criteria:

N438 Infection with *Haplosporidium nelson* (MSX) or *Haplosporidium costale* (sea side organism)

Standard for Laboratory Testing:

Reporting Criteria:

2007 QPX (Quahog parasite unknown)

Standard for Laboratory Testing:

Reporting Criteria:

Suspect case:

One should suspect an outbreak of QPX when quahogs, especially those bred via aquaculture, begin dying in large numbers. Dead clams will rise to the sand's surface just before they die. The most common way to diagnose QPX is by a microscopic examination of quahog tissue.

CRUSTACEAN:

N441 Spherical baculovirusis (*Penaeus monodon*-type baculovirus)

Standard for Laboratory Testing:
Reporting Criteria:

OIE Aquatic Manual, Ch.2.2.9

Definition of suspect case: For larvae (especially protozoa, mysis and early PL stages) of the susceptible species: mortality with larvae presenting white midguts. For juveniles: poor growth or poor culture performance in populations with a prior history of MBV infection or in regions where MBV is prevalent.

Definition of confirmed case: Any combination of at least two of the following three methods (with positive results):

- ✓ Microscopical demonstration of spherical occlusion bodies in wet mounts of whole larvae or excised hepatopancreata. For older PLs, juveniles and adults: spherical occlusion bodies evident in wet-mount squashes and/or in histological sections of the hepatopancreas or faeces.
- ✓ in situ hybridisation positive histological signal to MBV-type lesions (i.e. hypertrophied nuclei with or without pathognomonic spherical occlusion bodies).
- ✓ PCR positive results for MBV.

N442 Tetrahedral baculovirusis (*Baculovirus penaei*)

Standard for Laboratory Testing:
Reporting Criteria:

OIE Aquatic Manual, Ch.2.2.10.

Definition of suspect case: For larvae (especially protozoa, mysis and early PL stages): mortality with larvae presenting white midguts. For juveniles: poor growth in populations with a prior history of BP infection.

Definition of confirmed case: Any combination of at least two of the following three methods (with positive results):

- ✓ Microscopic demonstration of tetrahedral occlusion bodies in wet mounts of whole larvae or excised hepatopancreata. For older PLs, juveniles and adults: tetrahedral occlusion bodies evident in wet mount squashes and/or in histological sections of the hepatopancreas or faeces.
- ✓ In-situ hybridisation positive histological signal to BP-type lesions (i.e. hypertrophied nuclei with or without pathognomonic tetrahedral occlusion bodies).
- ✓ PCR positive results for BP.

N450 Taura syndrome

Standard for Laboratory Testing:
Reporting Criteria:

OIE Aquatic Manual, Ch.2.2.5

This disease is a foreign animal disease for the U. S. A. Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

N451 White spot disease

Standard for Laboratory Testing:
Reporting Criteria:

OIE Aquatic Manual, Ch.2.2.6.

Definition of suspect case: For juvenile and adult shrimp: gross signs of WSD. For shrimp at any life stage (larva to adult): mortality. For shrimp and crab at any life stage (larva to adult): hypertrophied nuclei in squash preparations of gill and/or cuticular epithelium; unusual aggregates in haemolymph by dark-field microscopy; inclusion bodies in histological sections in target tissues.

Definition of confirmed case: Suspect cases should first be checked by PCR or LAMP. If in a previously WSSV-free country/zone/compartiment, where PCR results are positive, they should be confirmed by sequencing. Histopathology, probes and electron microscopy also can be used to confirm the case.

N452 Infection with yellow head virus

Standard for Laboratory Testing:
Reporting Criteria:

OIE Aquatic Manual, Ch.2.2.8.

This disease is a foreign animal disease for the U. S. A. Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

N455 Infectious hypodermal and haematopoietic necrosis

Standard for Laboratory Testing:
Reporting Criteria:

OIE Aquatic Manual, Ch.2.2.2.

This disease is a foreign animal disease for the U. S. A. Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

N456 Crayfish plague (*Aphanomyces astaci*)

Standard for Laboratory Testing:
Reporting Criteria:

OIE Aquatic Manual, Ch.2.2.1.

This disease is a foreign animal disease for the U. S. A. Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

N457 Infectious myonecrosis

Standard for Laboratory Testing:
Reporting Criteria:

OIE Aquatic Manual, Ch.2.2.3.

This disease is a foreign animal disease for the U. S. A. Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

N458 White tail disease

Standard for Laboratory Testing:
Reporting Criteria:

OIE Aquatic Manual, Ch.2.2.7.

This disease is a foreign animal disease for the U. S. A. Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

N459 Acute hepatopancreatic necrosis disease (*V. parahemolyticus* pVA-1 plasmid)

Standard for Laboratory Testing:
Reporting Criteria:

OIE Aquatic Manual, Ch. (in development)

This disease is a foreign animal disease for the U. S. A. Reporting requires the concurrence of the USDA and the State Chief Animal Health Official.

AMPHIBIANS:

N601 Infection with *Batrachochytrium dendrobatidis*

Standard for Laboratory Testing:

OIE Aquatic Manual, Ch.2.1.1.

Reporting Criteria:

Definition of suspect case: Amphibian, apparently healthy or moribund which displays aberrant behaviour and has localised areas of sloughed skin. The skin must contain evidence of zoospore and sporangia structure which stain with antibodies obtained from the reference laboratory.

Definition of confirmed case: Amphibian, apparently healthy, moribund or dead in which skin contains Bd by TaqMan assay.

NOTE: Histology (hematoxylin and eosin sections) can be used with confidence by qualified pathologists as there are no other fungi present on amphibian with similar structure (sporangia with discharge tubes, zoospores, within cells of stratum corneum); however definitive definition is by TaqMan PCR.

N602 Infection with ranavirus

Standard for Laboratory Testing:

OIE Aquatic Manual, Ch.2.1.2.

Reporting Criteria:

Definition of suspect case:

Amphibian, apparently healthy, moribund or dead in which skin and or parenchymal tissues contain histological evidence of focal, multifocal or locally extensive liquefactive or coagulative necrosis with or without intracytoplasmic basophilic inclusion bodies.

Definition of confirmed case:

Amphibian, apparently healthy, moribund or dead in which skin and or parenchymal tissues contain histological evidence of focal, multifocal or locally extensive liquefactive or coagulative necrosis with or without intracytoplasmic basophilic inclusion bodies and/or in which ranavirus is demonstrated by the following means:

1.Characteristic CPE in cell culture and cell culture is positive for ranavirus in immunoperoxidase test or antigen-capture ELISA or PCR,

or

2.Tissues positive in antigen-capture ELISA or immunoperoxidase stain or immunoelectron microscopy or PCR.

And for both 1 and 2, where PCR is used: Sequence consistent with ranavirus is demonstrated by PCR-REA or PCR-sequencing.

NLRAD-NAHRS Monthly State Report Form-2016

An electronic copy of the NLRAD-NAHRS Monthly State Report form can also be found at the NAHRS Web site: https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/monitoring-and-surveillance/sa_disease_reporting/ct_info_for_participants

National List of Reportable Animal Diseases (NLRAD) National Animal Health Reporting System (NAHRS) Monthly Report Form (2016)



OMB Number 0579-0299
Exp. Date: 5/31/20XX
USDA:APHIS:VS:STAS
Fort Collins, CO 80526-8117

Instructions

These instructions refer to completion of the National List of Reportable Animal Diseases (NLRAD) National Animal Health Reporting System (NAHRS) form by the State Animal Health Officials (SAHO) or representative. NLRAD NAHRS reporting is completed through the NAHRS Web Reporting Tool: <https://vsapps.aphis.usda.gov/NAHRS>. This document reflects the reporting required in the NAHRS Web Reporting Tool and can be utilized to assist in completing reports or as a guide for reporting requirements. Additional information on the NLRAD NAHRS, reporting criteria, and utilizing the NAHRS Web Reporting Tool can be found at: https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/monitoring-and-surveillance/sa_disease_reporting/ct_info_for_participants

For each month, please report disease presence or absence for the entire month. Monthly reports are requested by the 20th of the following month. If you receive reports on out-of-state submissions, **REPORT ONLY CASES THAT OCCURRED IN YOUR OWN STATE.**

If you received a report of a case which fits the NAHRS criteria, check ‘**YES**’ under PRESENT. If you received a report of a case which does not fit the NAHRS criteria, but you have additional evidence to support the presence of confirmed disease, check ‘**YES**’ under PRESENT. If you received no reports in the investigation of a suspected disease which fit the NAHRS criteria and you have no further supporting evidence of the presence of confirmed disease, check ‘**NO**’ under PRESENT (e.g., all investigations for a given disease were negative.) A ‘**NO**’ report, in relation to an endemic disease, indicates that from information available there were no reports of confirmed disease occurrence, and does not infer the endemic disease does not occur in the State.

Most endemic diseases include both a presumptive and definitive level of confirmation. If a case meets the NAHRS confirmed (definitive) criteria for presence of disease, record it as present. If a case does not meet the NAHRS confirmed (definitive) criteria, but meets presumptive criteria—report the case if it is considered a probable case and ‘presumptive’ can be indicated in the comment section. The disease reporting criteria are minimum standards and additional information can be utilized to report i.e. epidemiological link, or other non-listed laboratory tests.

Add any additional information which you feel may be of value or pertinent in the COMMENTS column e.g. level of lab diagnosis; presumptive vs. confirmed; environment disease occurrence located in – backyard, feral, etc; and any other clarifying information needed.

If a report of a case is received after the report has been sent or edits to the report are required, notify the NAHRS administrator to update the information.

NAHRS Report for:

STATE:	MONTH:	YEAR:
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NOTE: Diseases below that are indicated as FAD (foreign animal disease) are those diseases that are considered foreign to the United States or are managed as FADs. Reporting the presence of a FAD occurrence is made after State-Federal coordination.

Disease Occurrence Information:

OIE NUMBER - DISEASE NAME	PRESENT		COMMENTS
	YES	NO	
BOVINE			
A010 Foot and mouth disease (all FMD, Viruses O, A, C, SAT 1, SAT 2, SAT 3, Asia 1)			FAD
A020 Vesicular stomatitis (VS, Viruses Indiana, New Jersey, or not typed)			Removed from the OIE list in 2015 but still reportable nationally
A040 Rinderpest			FAD
A060 Contagious bovine pleuropneumonia (<i>Mycoplasma mycoides mycoides</i>)			FAD
A070 Lumpy Skin Disease			FAD
A080 Rift valley fever			FAD
A090 Bluetongue			Indicate level of diagnostics – i.e. serology Type (if known):
N001 Crimean Congo hemorrhagic fever			FAD
2001 Akabane (congenital arthrogryposis-hydranencephalaly syndrome)			FAD
B051 Anthrax (<i>Bacillus anthracis</i>)			
B052 Aujeszky's disease (Pseudorabies)			Regulatory program disease
B053 Echinococcosis / Hydatidosis (<i>E. granulosus</i> , <i>E. multilocularis</i> , <i>E. oligarthrus</i> , <i>E. vogeli</i>)			
B055 Heartwater (<i>Cowdria ruminantium</i>)			FAD
B057 Q fever (<i>Coxiella burnetti</i>)			
B058 Rabies			
B059 Paratuberculosis (Johne's Disease, <i>Mycobacterium avium paratuberculosis</i>)			
B060 New World screwworm (<i>Cochliomyia hominivorax</i>)			FAD
B061 Old World screwworm (<i>Chrysomya bezziana</i>)			FAD
B101 Anaplasmosis (<i>Anaplasma marginale</i> , <i>A. centrale</i>)			
B102 Babesiosis (<i>Babesia bovis</i> , <i>B. bigemina</i>)			FAD
B103 Bovine brucellosis (<i>Brucella abortus</i>)			Regulatory program disease
B152 Caprine and ovine brucellosis (<i>Brucella melitensis</i>)			FAD
B253 Porcine brucellosis (<i>Brucella suis</i>)			Regulatory program disease
B104 Bovine genital campylobacteriosis (<i>Campylobacter fetus venerealis</i>)			
B105 Bovine tuberculosis (<i>Mycobacterium bovis</i>)			Regulatory program disease
N117 Bovine viral diarrhea (BVD)			
B108 Enzootic bovine leukosis (BLV)			
B109 Hemorrhagic septicemia (<i>Pasteurella multocida</i> , B/Asian or E/African serotypes)			FAD

BOVINE (cont)	YES	NO	
B110 Infectious bovine rhinotracheitis/ infectious pustular vulvovaginitis (IBR/IPV)			
B111 Theileriasis (<i>Theileria annulata</i> , <i>T. parva</i>)			FAD
B112 Trichomoniasis (<i>Tritrichomonas (Trichomonas) foetus</i>)			
B113 Trypanosomiasis (<i>Trypanosoma congolense</i> , <i>T. vivax</i> , <i>T. brucei brucei</i> , <i>T. evansi</i>)			FAD
B114 Malignant catarrhal fever			Indicate if Sheep or Wildebeest related form/ or other
B115 Bovine spongiform encephalopathy			FAD
N158 Epizootic hemorrhagic disease (EHD)			
C613 Melioidosis (<i>Burkholderia pseudomallei</i>) (Pseudoglanders, Whitmore disease)			FAD
FARMED CERVIDS	YES	NO	
A010 Foot and mouth disease (all FMD, Viruses O, A, C, SAT 1, SAT 2, SAT 3, Asia 1)			FAD
A020 Vesicular stomatitis (VS, Viruses Indiana, New Jersey, or not typed)			Removed from the OIE list in 2015 but still reportable nationally
A040 Rinderpest			FAD
A080 Rift valley fever			FAD
A090 Bluetongue			Type (if known):
N001 Crimean Congo hemorrhagic fever			FAD
2001 Akabane (congenital arthrogryposis-hydranencephalaly syndrome)			FAD
B051 Anthrax (<i>Bacillus anthracis</i>)			
B052 Aujeszky's disease (Pseudorabies)			Regulatory program disease
B053 Echinococcosis / Hydatidosis (<i>E. granulosus</i> , <i>E. multilocularis</i> , <i>E. oligarthrus</i> , <i>E. vogeli</i>)			
B055 Heartwater (<i>Cowdria ruminantium</i>)			FAD
B057 Q fever (<i>Coxiella burnetti</i>)			
B058 Rabies			
B059 Paratuberculosis (Johne's Disease, <i>Mycobacterium avium paratuberculosis</i>)			
B060 New World screwworm (<i>Cochliomyia (Callitroga) hominivorax</i>)			FAD
B061 Old World screwworm (<i>Chrysomya bezziana</i>)			FAD
B103 Bovine brucellosis (<i>Brucella abortus</i>)			Regulatory program disease
B152 Caprine and ovine brucellosis (<i>Brucella melitensis</i>)			FAD
B253 Porcine brucellosis (<i>Brucella suis</i>)			Regulatory program disease
B105 Bovine tuberculosis (<i>Mycobacterium bovis</i>)			Regulatory program disease
B114 Malignant catarrhal fever			Indicate if Sheep or Wildebeest related form/ or other
N156 Chronic Wasting Disease (CWD)			
N158 Epizootic hemorrhagic disease (EHD)			
C613 Melioidosis (<i>Burkholderia pseudomallei</i>) (Pseudoglanders, Whitmore disease)			FAD

CAPRINE AND OVINE	YES	NO	
A010 Foot and mouth disease (FMD, Viruses O, A, C, SAT 1, SAT 2, SAT 3, Asia 1, or not typed)			FAD
A020 Vesicular stomatitis (VS, Viruses Indiana, New Jersey, or not typed)			Removed from the OIE list in 2015 but still reportable nationally
A040 Rinderpest			FAD
A050 Peste des petits ruminants			FAD
A080 Rift Valley fever			FAD
A090 Bluetongue			Type (if known):
A100 Sheep pox and goat pox			FAD
N001 Crimean Congo hemorrhagic fever			FAD
2001 Akabane virus (congenital arthrogryposis-hydranencephalaly syndrome)			FAD
B051 Anthrax (<i>Bacillus anthracis</i>)			
B052 Aujesky's disease (Pseudorabies)			Regulatory program disease
B053 Echinococcosis / Hydatidosis (<i>E. granulosus</i> , <i>E. multilocularis</i> , <i>E. oligarthrus</i> , <i>E. vogeli</i>)			
B055 Heartwater (<i>Cowdria ruminantium</i>)			FAD
B057 Q fever (<i>Coxiella burnetti</i>)			
B058 Rabies			
B059 Paratuberculosis (Johne's Disease, <i>Mycobacterium avian subsp. paratuberculosis</i>)			
B060 New World screwworm (<i>Cochliomyia (Callitroga) hominivorax</i>)			FAD
B061 Old World screwworm (<i>Chrysomya bezziana</i>)			FAD
B103 Bovine brucellosis (<i>B. abortus</i>)			Regulatory program disease
B105 Bovine Tuberculosis (<i>Mycobacterium bovis</i>)			Regulatory program disease
B111 Theileriosis (<i>Theileria annulata</i> , <i>T. parva</i>)			FAD
B151 Ovine epididymitis (<i>Brucella ovis</i> infection)			
B152 Caprine and ovine brucellosis- (<i>B. melitensis</i>) (all others except <i>B. ovis</i>)			FAD
B153 Caprine arthritis / encephalitis (CAE)			
B154 Contagious agalactia (<i>Mycoplasma agalactiae</i> , <i>M. capricolum capricolum</i> , <i>M. putrefaciens</i> , <i>M. mycoides mycoides</i> , <i>M. mycoides mycoides</i> LC)			
B155 Contagious caprine pleuropneumonia (<i>Mycoplasma capricolum capripneumoniae</i>)			FAD
B156 Enzootic abortion of ewes (Ovine Psittacosis, <i>Chlamydia psittaci</i>)			
B158 Nairobi sheep disease			FAD
B159 Salmonellosis (<i>Salmonella abortus ovis</i>)			
B160 Scrapie			Regulatory program disease
B161 Maedi-visna / ovine progressive pneumonia			
B352 Tularemia (<i>Francisella tularensis</i>)			
N002 West Nile fever / encephalitis			
C613 Melioidosis (<i>Burkholderia pseudomallei</i>)			FAD

(Pseudoglanders, Whitmore disease)			
C706 Mange (<i>Sarcoptes scabiei</i> var <i>ovis</i> , <i>Chorioptes bovis</i> , <i>Psoroptes ovis</i> , <i>Psoroptes cuniculi</i> , <i>Psorergates ovis</i>)			
EQUINE	YES	NO	
A020 Vesicular stomatitis (VS, viruses Indiana, New Jersey, or not typed)			Removed from the OIE list in 2015 but still reportable nationally
A110 African horse sickness			FAD
B051 Anthrax (<i>Bacillus anthracis</i>)			
B053 Echinococcosis / Hydatidosis (<i>E. granulosus</i> , <i>E. multilocularis</i> , <i>E. oligarthrus</i> , <i>E. vogeli</i>)			
B058 Rabies			
B060 New and Old World screwworm (<i>Cochliomyia (Callitroga) hominivorax</i>)			FAD
B061 Old World screwworm (<i>Chrysomya bezziana</i>)			FAD
B062 Trichinellosis (<i>Trichinella spiralis</i>)			
B201 Contagious equine metritis (<i>Taylorella equigenitalis</i>)			FAD
B202 Dourine (<i>Trypanosoma equiperadum</i>)			FAD
N220 Eastern equine encephalomyelitis (EEE)			
N221 Western equine encephalomyelitis (WEE)			
B205 Equine infectious anemia (EIA)			Report additional EIA testing information below
B206 Equine influenza (virus type A)			
B207 Equine piroplasmiasis (Babesiosis, <i>Babesia (Piroplasma) equi</i> , <i>B. caballi</i>)			
B208 Equine rhinopneumonitis (EHV 1)			
B208a Equine herpesvirus myeloencephalopathy (EHV1 – EHM)			
B209 Glanders (<i>Pseudomonas mallei</i>)			FAD
B211 Equine viral arteritis (EVA)			
B212 Japanese encephalitis			FAD
B215 Surra (<i>Trypanosoma evansi</i>)			FAD
B216 Venezuelan equine encephalomyelitis			FAD
N352 Tularemia (<i>Francisella tularensis</i>)			
N002 West Nile Fever / encephalitis			
W075 Hendra virus			FAD
C613 Melioidosis (<i>Burkholderia pseudomallei</i>) (Pseudoglanders, Whitmore disease)			FAD
PORCINE	YES	NO	
A010 Foot and mouth disease (FMD-O, A, C, SAT 1, SAT 2, SAT 3, Asia 1, or not typed)			FAD
A020 Vesicular stomatitis (VS, Viruses Indiana, New Jersey, or not typed)			Removed from the OIE list in 2015 but still reportable nationally
A030 Swine vesicular disease			FAD
A040 Rinderpest			FAD
A120 African swine fever			FAD

A130 Classical swine fever (hog cholera)			FAD
N258 Nipah virus encephalitis			FAD
B051 Anthrax (<i>Bacillus anthracis</i>)			
B052 Aujeszky's disease (Pseudorabies)			Regulatory program disease
PORCINE (cont.)	YES	NO	
B053 Echinococcosis / Hydatidosis (<i>E. granulosus</i> , <i>E. multilocularis</i> , <i>E. oligarthrus</i> , <i>E. vogeli</i>)			
B058 Rabies			
B060 New World screwworm (<i>Cochliomyia (Callitroga) hominivorax</i>)			FAD
B061 Old World screwworm (<i>Chrysomya bezziana</i>)			FAD
B062 Trichinellosis (<i>Trichinella spiralis</i>)			
B212 Japanese encephalitis			FAD
B252 Cysticercosis (<i>Cysticercus cellulosae</i> metacestode stage of <i>Taenia solium</i>)			
B253 Porcine brucellosis (<i>Brucella suis</i>)			Regulatory program disease
B254 Transmissible gastroenteritis (TGE)			
B257 Porcine reproductive and respiratory syndrome (PRRS)			
B352 Tularemia (<i>Francisella tularensis</i>)			
C613 Melioidosis (<i>Burkholderia pseudomallei</i>) (Pseudoglanders, Whitmore disease)			FAD
C801 Swine erysipelas (<i>Erysipelothrix rhusiopathiae</i>)			
2006 Vesicular exanthema			
2010 Swine Enteric Coronavirus Disease (SECD) – Porcine epidemic diarrhea virus (PEDV); Porcine delta coronavirus (PDCoV)			Federal Order
POULTRY	YES	NO	
A150h Highly pathogenic avian influenza (fowl plague)			FAD
N150i Low pathogenic avian influenza (H5 or H7 subtypes) poultry			
A160 Newcastle disease (exotic)(END)			Domestic Poultry FAD
N315 Turkey rhinotracheitis			
B301 Avian infectious bronchitis			
B302 Avian infectious laryngotracheitis			
B304 Duck viral hepatitis			FAD
B308 Fowl typhoid (<i>Salmonella gallinarum</i>)			FAD
B309 Infectious Bursal Disease (Gumboro Disease)			
B311 Mycoplasmosis (<i>Mycoplasma gallisepticum</i>)			
B312 Avian Chlamydiosis (Psittacosis and Ornithosis, <i>Chlamydia psittaci</i>)			
B313 Pullorum Disease (<i>Salmonella pullorum</i>)			Absent in commercial poultry
N316 Mycoplasmosis (<i>Mycoplasma synoviae</i>)			
LAGOMORPH (Rabbits & Hares)	YES	NO	
B351 Myxomatosis (Myxoma virus)			

B352 Tularemia (<i>Francisella tularensis</i>)			
B353 Rabbit hemorrhagic disease			FAD
OTHER DISEASES	YES	NO	
B501 Leishmaniosis (Canines, feline, or equine)			
N502 Camel pox			FAD
BEE (APIARY) Optional Reporting	YES	NO	
B451 Acarapisosis of honey bees			
B452 American foulbrood of honey bees			
B453 European foulbrood of honey bees			
B455 Small hive beetle infestation (<i>Aethina tumida</i>)			
2008 Tropilaelaps infestation of honey bees			FAD
2009 Varroosis of honey bees			
AQUACULTURE	YES	NO	
FISH			
B401 Viral hemorrhagic septicemia (VHS)			Domestic FAD and FAD outside Great Lakes region
B402 Infectious pancreatic necrosis			
N403 Infectious salmon anemia (ISA) (HPR-deleted or HPR0)			FAD
B404 Spring viremia of carp (SVC)			Domestic FAD
B405 Infectious hematopoietic necrosis (IHN)			
B408 Bacterial kidney disease (<i>Renibacterium salmoninarium</i>)			
N412 Viral encephalopathy and retinopathy (Viral Nervous Necrosis) (<i>Betanodavirus</i>)			
B413 Epizootic hematopoietic necrosis			FAD
B415 Oncorhynchus masou virus disease (herpesvirosis of salmonids)			FAD
N417 Epizootic ulcerative syndrome (EUS)			
N418 Gyrodactylosis (<i>Gyrodactylus salaricus</i>)			FAD
N419 Red sea bream iridoviral disease			FAD
N420 Koi herpesvirus disease			
N415 Piscirickettsiosis (<i>Piscirickettsia salmonis</i>)			
2002 Whirling disease (<i>Myxobolus cerebralis</i>)			
2003 White sturgeon iridoviral disease			
2011 Infection with salmonid alphavirus			FAD
MOLLUSC			
N430 Infection with <i>Bonamia ostreae</i>			Domestic FAD
N431 Infection with <i>Bonamia exitiosa /roughleyi</i>			Domestic FAD
N432 Infection with <i>Marteilia refringens</i>			FAD
N433 Infection with <i>Perkinsus marinus</i>			
N434 Infection with <i>Perkinsus olseni/atlanticus</i>			FAD
N435 Infection with <i>Xenohalotis californiensis</i>			FAD
N436 Infection with abalone herpes-likevirus			FAD

2004 Infection with <i>Marteilia chungmuensis</i>			
2005 Infection with <i>Marteilia sydneyi</i>			
N438 Infection with <i>Haplosporidium nelson</i> (MSX) or <i>Haplosporidium costale</i> (sea side organism)			FAD
2007 QPX (Quahog parasite unknown)			
2008 Infection with Ostreid herpesvirus-1 microvar (OsHV-1 microvar)			
CRUSTACEAN			
N441 Spherical baculovirosis (<i>Penaeus monodon</i> -type baculovirus)			FAD
N442 Tetrahedral baculovirosis (<i>Baculovirus penaei</i>)			FAD
N450 Taura syndrome			FAD
N451 White spot disease			Regional FAD
N452 Yellowhead disease			FAD
N455 Infectious hypodermal and haematopoietic necrosis			FAD
N456 Crayfish plague (<i>Aphanomyces astaci</i>)			FAD
N457 Infectious myonecrosis			FAD
N458 White tail disease			FAD
N459 Acute hepatopancreatic necrosis disease (AHPND) (<i>Vibrio parahaemolyticus</i> -pVA-1 plasmid)			FAD
AMPHIBIAN DISEASES	YES	NO	
N601 Infection with <i>Batrachochytrium dendrobatidis</i>			
N602 Infection with ranavirus			

Additional Equine Infectious Anemia Testing Information:

1. Number of EIA <u>tests</u> performed in reporting month:	
2. Number of horses tested in reporting month (leave blank if unavailable):	
3. Number of <u>horses</u> tested positive in reporting month:	
4. Number of <u>premises</u> (epidemiological units) with positive(s) in reporting month (If premises previously reported in calendar year do not report, and if no other positive premises indicate -- 0):	
5. Number of <u>total horses</u> quarantined in State for positive EIA test:	

Instructions for Additional Equine Infectious Anemia Questions:

- 1. Number of EIA tests performed in reporting month:** Report the total number of EIA tests performed the reporting month for horses that reside in your State. This includes all tests on resident horses conducted both at in-state and out-of-state labs.

2. **Number of horses tested in reporting month (if unavailable leave blank):** Report the number of horses tested for EIA for the reporting month. Do not include repeat EIA tests on the same horse in the calendar year. **If this information is unavailable, leave this blank.**
3. **Number of horses tested positive in reporting month:** Report the total number of newly identified horses tested positive for EIA in the reporting month. Do not include repeat testing of an already identified positive horse.
4. **Number of premises (epidemiological units) with positive(s) in reporting month (If premise previously reported in calendar year do not report, and if no other positive premises indicate -- 0):** Identify the number of premises (epidemiological units) with positive EIA horses for the calendar year. If a premise has been reported as positive in a previous monthly report, do not include in number of premises positive in reporting month. If the only positive premises is a premises identified on a previous monthly report for the calendar year, report '0'. Example: if a premise has one positive horse in June and additional testing in July identifies 3 additional positive horses on the same premises – for July indicate 3 positive horses and '0' for number of premises.
5. **Number of total horses quarantined in State for positive EIA test:** This is the total number of EIA quarantined horses at the end of the previous month with the addition of newly identified EIA positive horses and minus any EIA quarantined animals that were destroyed or died in the reporting month.

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 0579-0299. The time required to complete this information collection is estimated to average 8 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.