NVSL-AMES DIAGNOSTIC TESTING MANUAL

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I. INTRODUCTION

This manual is a guide to aid veterinary diagnosticians in obtaining diagnostic laboratory support. The services range from a single laboratory test to comprehensive laboratory services covering many pathogens for a suspected disease outbreak. The selection and submission of materials collected in the field will vary according to the type and extent of laboratory support desired by the submitter. This manual provides a concise outline of how to select, prepare, package, and ship materials for laboratory examination. For further information, please contact the National Veterinary Services Laboratories (NVSL).

II. GENERAL INFORMATION

A. CONTACTING THE LABORATORY FOR SPECIAL REQUESTS OR ADVICE

All correspondence should be sent to the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), at the address listed below. If immediate action is necessary, contact the appropriate individual laboratory.

National Veterinary Services Laboratories
Director's Office
1800 Dayton Avenue
P.O. Box 844
Ames, IA 50010

Director's Office (DO) ..... (515) 663-7301, FAX (515) 663-7397

Biological Materials Processing Section (BMPS)
Receiving ..... (515) 663-7212, FAX (515) 663-7359
Shipping ..... (515) 663-7530, FAX (515) 663-7378

Diagnostic Bacteriology Laboratory (DBL) ..... (515) 663-7568, FAX (515) 663-7569

Diagnostic Virology Laboratory (DVL) ..... (515) 663-7551, FAX (515) 663-7348

Pathobiology Laboratory (PL) ..... (515) 663-7521, FAX (515) 663-7527

User Fee Section ..... (515) 663-7571 or 7550
FAX (515) 663-7402
E-mail: nvslclient.help@usda.gov

Web site..... http://www.aphis.usda.gov/vs/nvsl

Foreign Animal Disease Diagnostic Laboratory* (FADDL) ..... (631) 323-3256, 3206
FAX (631) 323-3366

*National Veterinary Services Laboratories
Foreign Animal Disease Diagnostic Laboratory
P.O. Box 848
Greenport, NY 11944-0848

B. LABORATORY SERVICES AVAILABLE

Pathobiology Laboratory (PL)

The PL has pathologists to investigate suspected foreign animal disease outbreaks or animal diseases of unusual nature or severity. Pathologic examination of animal tissues is performed in support of APHIS programs to prevent introduction of, provide surveillance for, and/or facilitate eradication of serious animal diseases, such as transmissible spongiform encephalopathies in various animal species, and bovine tuberculosis.

The Chemistry and Analytical Services (CAS) Section is involved in the quantitative analysis of pesticide in animal dips, sprays, disinfectants used in Veterinary Services (VS) programs, elemental analyses in various specimens, and organic analyses.

The services provided by the Parasitology and Clinical Pathology Section of the PL include identification of internal and external parasites of livestock and wildlife, in addition to tick and screwworm surveillance activities. Fraudulent blood screening is also available.

Diagnostic Bacteriology Laboratory (DBL)

The DBL performs diagnostic bacteriologic examinations for a variety of important agents, including the following: culture and identification of aerobes, microaerophiles, and anaerobes; salmonella serotyping; S. enteritidis and S. typhimurium phage typing; Brucella sp. and Mycobacterium sp.**;** diagnostic serology for Johne's disease; anaplasmosis; contagious equine metritis; equine and bovine piroplasmosis; dourine; glanders; brucellosis (abortus, ovis, melitensis, and canis); tularemia; pullorum typhoid; S. enteritidis; S. abortus equi; and avian mycoplasmal infections. The laboratory provides diagnostic support for the National Tuberculosis and Brucellosis Eradication programs.

Diagnostic Virology Laboratory (DVL)

The DVL isolates and identifies viral, chlamydial, and rickettsial agents which require living cell systems for isolation, and also performs serologic testing for antibodies against these agents. The work is performed under high security since the viruses of major interest to APHIS cause serious animal diseases, including exotic Newcastle disease, equine encephalomyelitis, bluetongue, highly pathogenic avian influenza, and vesicular stomatitis. The DVL is an Office International des Epizooties (OIE) Reference Laboratory for Newcastle disease, highly pathogenic avian influenza, vesicular stomatitis, bluetongue, pseudorabies, Venezuelan equine encephalomyelitis, and equine infectious anemia.

The laboratory provides support for the pseudorabies and equine infectious anemia control programs and diagnostic assistance to other laboratories. It is responsible for standardization of pseudorabies, bluetongue, equine infectious anemia, bovine leukosis, and equine viral arteritis serologic testing among stakeholder laboratories by providing diagnostic proficiency test kits.

Foreign Animal Disease Diagnostic Laboratory (FADDL)

The FADDL is a high-level biocontainment laboratory located at the Plum Island Animal Disease Center (Agricultural Research Service). The FADDL personnel have multidisciplinary expertise and the capability of diagnosing approximately 40 animal diseases foreign to the United States (U.S.). The laboratory offers training in foreign animal disease (FAD) diagnosis and epidemiology to veterinarians and other animal health personnel.

Import-Export

The NVSL does a variety of import-export testing. **For information and assistance, contact the head of the Biological Materials Processing Section (BMPS), Ames, Iowa, at (515) 663-7212.** Results of the NVSL (Ames) testing are either reported by telephone, mailed on a standard form, or sent by fax. The FADDL tests all ruminants, swine, and camelids for importation from any country with foot- and-mouth disease or rinderpest. In addition, the FADDL tests wild ruminants and swine for a variety of FADs. Biological products are also tested for extraneous foreign disease agents. For specific information concerning FAD testing, contact the Chief of the FADDL at (631) 323-3256.

C. USER FEES

In September 1990, President Bush signed the 1990 Food, Agriculture, Conservation, and Trade Act (Farm Bill) authorizing APHIS to recover the costs for certain services provided by the Agency to assist in relief of the Federal deficit. Diagnostic testing at the NVSL is one of the activities included in the Bill. Each diagnostic procedure provided by the NVSL has been cost-accounted based on the total expense of labor required to perform the test, multiplied by a factor representing the cost of supplies, reagents and overhead, and supplemented with a cost representing APHIS overhead.

The NVSL User Fee Regulation that included the first NVSL fee schedule was published in the Federal Register on July 2, 1993. The NVSL had user fee increases in October of 1998; operating costs have increased since fees were last increased in 1998 and recently an additional regulation went into effect that changed the fees currently being charged for the services provided. The new regulation also allows automatic rate changes for multiple years.

Due to NVSL's fees changing yearly beginning October 1, 2004, and every October thereafter, a separate enclosure is located in the front of this catalog to reference the current charge for the fee code listed.

The NVSL charges user fees for diagnostic services such as import and export testing, interstate testing, reference assistance testing, and diagnostic reagents. **Testing for APHIS programs, such as FAD investigations, brucellosis and tuberculosis (program species only), and pseudorabies is not subject to charge.**

Payment for services must be made in advance unless you have an account already established with USDA. Payment may be in the form of check, money order, or bank draft in U.S. dollars, made payable to USDA. Visa, MasterCard, or American Express is also an acceptable method of payment. If paying with a credit card, include the credit card number and expiration date on your submission form. If you have an account, and would like the services billed to that account, write your account number in the designated area on the submission form. If you do not have an account, and would like one, contact the APHIS Business Services in Minneapolis, Minnesota, at (877) 777-2182. If you have any questions regarding NVSL's user fees, contact the NVSL User Fee Help Line at (515) 663-7571 or 7550.

D. AUTHORIZATION FOR SUBMITTING SPECIMENS

Routine Submissions

In general, the Area Veterinarian-in-Charge (AVIC) authorizes incoming specimen submissions of U.S.-origin samples and suspect exotic diseases to the NVSL. Major exceptions to this rule occur during emergency field operations.

Authorization is assumed for routine program submissions made by regulatory field veterinarians, state or university diagnostic laboratories, or Food Safety and Inspection Service veterinarians when such submissions are accompanied by the proper submission forms, i.e., VS Form 10-4 (Specimen Submission Form), VS Form 6-35 (Report of Thoracic Granulomas in Regular Kill Animals), or VS Form 10-3 (Request for Salmonella Serotyping).

Samples received from other countries must be accompanied by a valid USDA import permit; the laboratory conducting the analyses should be contacted to obtain the permit.

Suspected Exotic Diseases

If an exotic disease (these are marked with an asterisks in the catalog) is suspected, contact the AVIC and the Emergency Programs Staff to obtain the information necessary to submit samples for FAD testing and to acquire the Investigation Control Number that must be included with the submission. **Approval by a Regional Director or an Emergency Programs Staff member is required for shipment of any specimens originating from animals suspected of having an exotic disease. DO NOT ship any such specimen until approval is received and a control number is assigned. The receipt of an unauthorized shipment of specimens containing exotic disease agents can cause substantial disruption of work at the laboratory.** If clearance is given, the proper priority designation should be used (see item E below), and telephone notification of priority 1 or 2 shipments should be made, as directed by Emergency Programs, to the Head of BMPS or the Laboratory Director at the NVSL. There is no charge for this testing.

E. PRIORITY DESIGNATIONS (See VS Memorandum 580.5)

Submissions arriving at the NVSL are categorized for priority of processing. Priority of a submission should be marked on a special label affixed to the outside of the shipping container and marked on the submittal form. **Priority designations 1 and 2 can only be specified by a Regional Director or an Emergency Programs Staff member.** A special label is provided for this purpose in all NVSL-supplied shipping containers. Processing procedures for each priority designation are as follows:

Priority 1

Specimens will be unpacked, examined, and diagnostic assays begun immediately upon arrival at the NVSL. Overtime will be used if necessary. Results will be reported immediately as results are obtained (including progress reports) by telephone, fax, and/or computer, according to program requirements, and upon completion of laboratory examination (final report).

Priority 2

Specimens will be processed the day they are received if the samples reach the laboratory before the close of the work day. Overtime will be used to finish the examination of specimens received before the close of the work day on weekdays, and for those received on weekends and holidays. Specimens arriving after the close of the work day will be examined the following day, including weekends. Results will be reported by telephone, fax, and/or computer as they are obtained (progress) and completed (final).

Priority 3

No overtime will be used for these nonemergency cases. Specimens will be processed according to accession number order, unless otherwise directed by the Section Head. A specimen arriving after 4:00 p.m. on Friday will not be processed until Monday or later, depending on the current backlog of cases.

NOTE: Any specimens received without a priority rating will be handled as a Priority 3.

F. PROCEDURES FOR COLLECTION AND SUBMISSION OF SPECIMENS

General Information

The list of specimens in the TABLE OF SPECIMEN COLLECTION (page 12) is a guide for the type of specimens required. In some cases, specific instructions are given for the specimens listed for the respective diseases. However, all cases of an exotic disease do not always run a typical course or have classical lesions. In addition, insidious disease forms may enter a susceptible population and spread without identification because they do not show the expected clinical picture. Therefore, a comprehensive collection of specimens based on species will be the most useful in providing a diagnosis.

These instructions are intended to supply the field diagnostician with lists of specimens based on species, as well as recommended necropsy and required shipping procedures. The specimen listings are minimum recommended lists and are not intended to replace the field diagnostician's judgment concerning the collection of additional specimens.

The following items were given consideration in compiling the lists:

a. Each species specimen list lends itself to diagnostic confirmation of FADs for the species.

b. The specimen lists include adequate specimens for differential diagnosis of domestic animal diseases that might be confused with a foreign animal disease.

c. These lists represent a minimum of specimens necessary for basic diagnostic testing; additional specimens are left to the field diagnostician's discretion.

d. For vesicular disease specimens, consult the TABLE OF SPECIMEN COLLECTION (page 12).

e. Toxicology-related problems have not been given consideration in the TABLE OF SPECIMEN COLLECTION by species. For toxicology-related problems, consult with toxicology personnel prior to submission at Area Code (515) 663-7542.

Pre-necropsy

a. Obtain and record the animal and/or herd history.

b. Do not approach the examination with a preconceived diagnosis.

c. Make sure appropriate disinfectant is available and be familiar with its use.

d. Observe and collect samples from clinically normal animals first, if applicable (i.e., multiple pens with one pen containing clinically ill animals).

e. Conduct the examination of live animals with precautions needed to protect attendants, yourself, and other animals from infection or injury. Always be aware of rabies and other diseases transmissible to man or highly contagious to other animals.

f. Examine and collect specimens from live animals not intended for necropsy. Select animals in various stages of disease.

g. If possible, select several animals in various stages of disease for necropsy. Obtain permission from the owner to conduct the necropsy. Be aware of the owner's wishes, and use safeguards necessary for proper disposal of the carcass.

Preparation for the Necropsy

a. Remove from the kit only what is needed, so that unused equipment will not be contaminated.

b. Do not conduct necropsies while wearing street clothes. Wear rubber boots, gloves, and coveralls. A mask and goggles may be used at your discretion.

c. Check the TABLE OF SPECIMEN COLLECTION to see what samples are required, but remember, this is a minimum recommended list. In addition to the listed specimens, samples of all lesions should be collected for histopathologic examination.

d. Prelabel specimen containers to ensure all recommended specimens will be collected.

(1) Use a method of labeling which cannot be lost or easily destroyed. For example, adhesive tape should go entirely around the vial so that it will not be dislodged by moisture.

(2) Writing should be with pencil or waterproof ink.

(3) Use plastic screw-cap containers instead of glass containers where practical. Electrical tape should be wound around the cap in the same direction as the screw cap is applied.

(4) Use disposable equipment such as cardboard trays and disposable syringes.

What to Remember about Collecting Specimens

a. Fresh tissue for microbiological and toxicological examination:

Each tissue to be preserved in a refrigerated or frozen state should be placed in a separate container.

b. Preserved tissue for histologic examination:

The recommended preservative is 10% buffered neutral formalin. All tissues can be placed in one container, but allow a ratio of ten volumes of formalin to one volume of tissue (10:1). To provide adequate fixation, cut the tissue into slices no more than 3-6 mm thick. Cut lesions so that a normal area of tissue or organ is included in the section. Lymph nodes or organs with capsules should be incised. The whole brain or half brain should remain intact for fixation without making multiple cross-sections in the brain substance. See specific instructions for BSE Surveillance, page 14.

c. The initial piece of each organ will be collected aseptically for microbiological examination. Flame the instruments before collecting each specimen, or use separate sterile instruments. Samples from the gut or intestine should be collected last.

d. Swabs should be placed in transport medium, swirled, and then discarded. For bacteriology investigations, it is critical that the swabs remain in the transport medium until it reaches the NVSL.

Necropsy Procedure

a. If the animal is presented for euthanasia, collect blood samples before euthanatizing. If the animal is presented dead, collect the blood or serum samples from the heart. Make blood smears, air dry, and fix in methanol.

b. Cattle, sheep, goats, and pigs are best positioned on their left side. Horses should be positioned on their right side.

c. Make an external examination and collect ectoparasites (place in 70% alcohol).

d. Collect nasal swabs and skin lesions or swabs, if indicated. Place in transport or growth nutrient media, and refrigerate.

e. To prevent contamination, disinfect the skin or use clean instruments to open body cavities. Open the abdominal and thoracic cavities carefully so as to prevent contamination from the outside or from a cut organ.

f. Observe, but do not disturb, organ placement (note any abnormalities).

g. With a syringe, aseptically collect a specimen of any abnormal body fluid.

h. Aseptically collect specimens of liver, kidney, spleen, and lymph nodes (gastrohepatic node for swine).

i. Aseptically collect specimens of lung and heart.

j. Remove the tongue, open the pharynx, and collect the tonsil (swine).

k. Remove the trachea, lung, and heart. Collect tracheal and bronchial swabs if appropriate. Examine the respiratory tract and heart.

l. Tie off and remove a 3" section of ileum just anterior to the ileocecal valve. Double ligate to prevent spillage of intestinal contents. Do not tie off intestinal segments to be placed in formalin because the fixative should infiltrate the lumen of the organ.

m. Complete the examination of the abdominal cavity. The entire digestive tract should be opened.

n. Decapitate the animal, remove the brain and collect specimens (note any abnormalities).

Post-necropsy

a. Decontaminate instruments before cleaning them.

b. Clean and disinfect all work surfaces.

c. Decontaminate self, e.g., disinfect and remove boots, gloves, and coveralls.

d. Record the necropsy findings.

TABLE OF SPECIMEN COLLECTION

SPECIES	TISSUES FOR MICROBIOLOGICAL AND HISTOLOGICAL EXAMINATION	BLOOD SAMPLES	OTHER
Bovine	Skin and nasal swabs, prescapular lymph node (LN), body cavity fluids, joint fluids, liver, kidney, mesenteric LN, lung, heart, tracheal swab, 3" tied-off section of small intestine and ileum (affected area if present), 1/2 brain, any specific lesion. See p. 14 for brain collection from BSE suspects.	Serum, 10 ml. Whole blood, 20 ml, EDTA. 6 blood smears - air dry, fix in methanol.	External parasites (alcohol)
Porcine	Skin swab, fluid from any affected joint, body cavity fluids, spleen, liver, kidney, gastrohepatic and mesenteric LN, lung, tonsil, 3" tied-off loop of small intestine and colon, 1/2 brain, any specific lesion.	Serum, 10 ml. Whole blood, 20 ml, EDTA. 6 blood smears - air dry, fix in methanol.	External parasites (alcohol)
Equine	Prescapular LN, mandibular LN, body cavity fluids, spleen, liver, kidney, mesenteric LN, 1/2 brain, any specific lesion. Swabs (if contagious equine metritis suspected*): Mares - urethral, clitoral. Stallions - penile sheath, urethral fossa, urethra.	Serum, 20 ml. Whole blood, 20 ml, heparinized. 6 blood smears - air dry, fix in methanol.	External parasites (alcohol)

*Amies transport medium with charcoal required; specimens must reach the NVSL within 48 hours after collection.

SPECIES	TISSUES FOR MICROBIOLOGICAL AND HISTOLOGICAL EXAMINATION	BLOOD SAMPLES	OTHER
Ovine or Caprine	Skin and nasal swab, prescapular LN, mammary tissue, body cavity fluids, spleen, liver, kidney, mesenteric LN, lung, pleural LN, tracheal and bronchial swabs, 1/2 brain, any specific lesion.	Serum, 10 ml. Whole blood, 10 ml, heparinized. 6 blood smears - air dry, fix in methanol.	External parasites (alcohol)
Avian	Tracheal and cloacal swabs, liver, spleen, kidney, lung, trachea, bone marrow, heart, ovary, brain, terminal intestine, bursa of Fabricius, any specific lesion.	Serum, 2 ml.	External parasites (alcohol) Tracheal and cloacal swab
Vesicular	Vesicular fluid (all that is obtainable), vesicular lesion epithelium, flaps of epithelial tissue, esophageal-pharyngeal fluid (10 ml before dilution with tris-buffered tryptose broth, pH 7.4-7.6 with phenol red). In addition, if dead--prescapular LN, adrenal, kidney, thyroid, heart, tonsil, mandibular LN.	Serum, 10 ml.	

G. SPECIMEN COLLECTION FOR BSE SURVEILLANCE

For cattle showing clinical signs of nervous system disease

Cattle that show clinical signs of nervous system disease should be observed over a period of time, about two weeks if possible, to determine whether the signs become progressively more severe. If improvement or recovery does not occur, the suspect animal should be euthanatized humanely. The entire brain should be removed intact with a portion of the cranial cervical spinal cord attached. The brain is then subdivided as follows:

a) The brain stem is transected at the level of the mesencephalon just cranial to the pons by slicing in the space between the cerebral hemispheres and underlying brain stem (thalamus and mesencephalon) to the remainder of the caudal brain stem (pons and medulla). The cerebral hemispheres are then separated from each other by cutting along the midline. One of the cerebral hemispheres should be placed in a plastic bag for possible western blot or microbiological analysis, and the other in a liter bottle of 10% neutral buffered formalin without any further cuts or slicing.

b) Remove a lateral portion (1/3) of the cerebellum and place in bag with the detached cerebral cortex.

c) A portion of the cranial cervical spinal cord (approximate 1/2 inch section) is then removed from the caudal end of the medulla and placed in the plastic bag along with the cerebral cortex and cerebellum.

d) The remaining brain (medulla, pons, and cerebellum) should be placed in a second liter bottle of 10% neutral buffered formalin without any further cuts or slicing.

NOTE: If brain specimens are to be sent to a public health or state veterinary diagnostic laboratory for rabies testing, the pons and hippocampus should be removed in their entirety from the brain and bagged separately for submission.

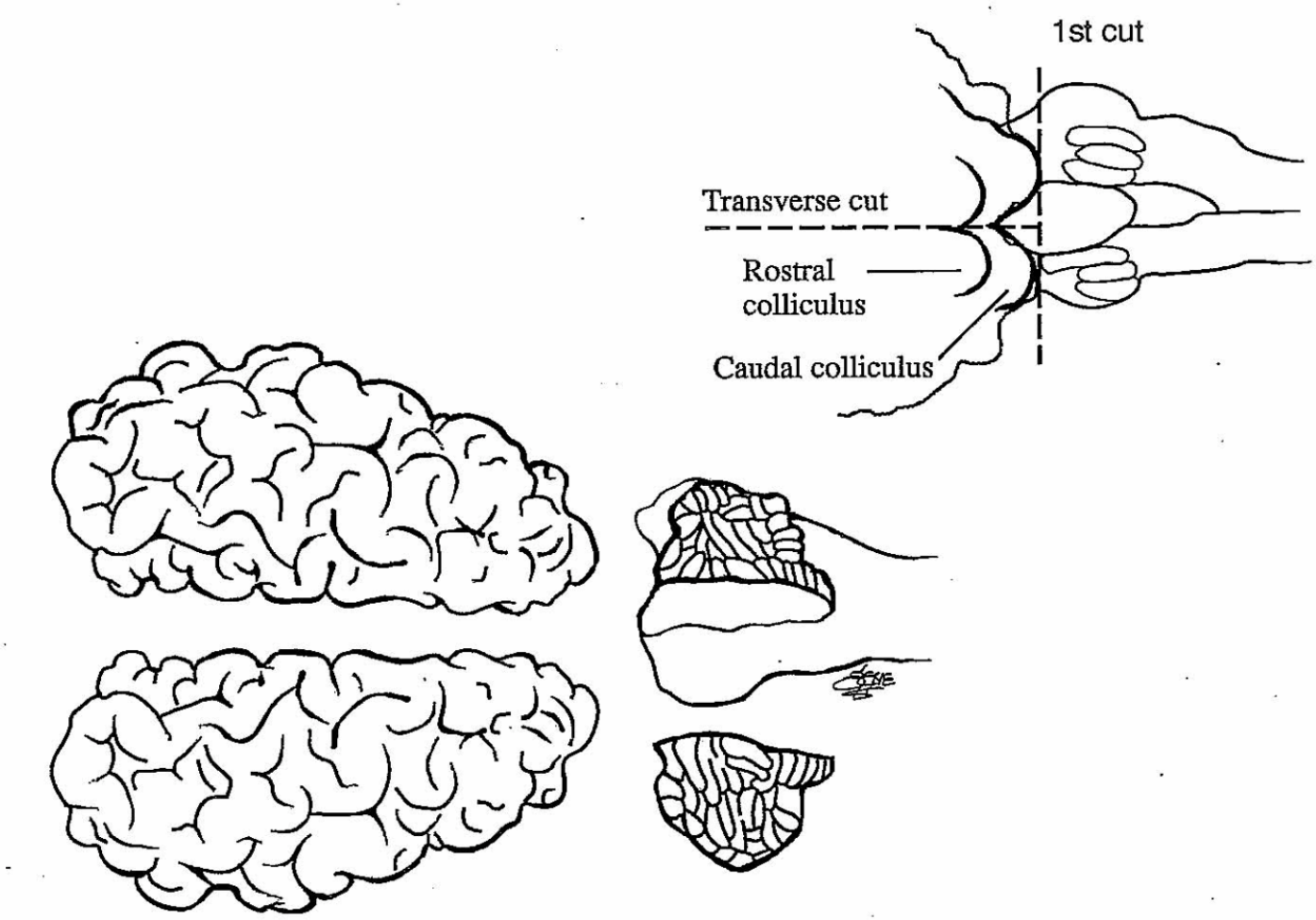
1st cut
Transverse cut
Rostral
colliculus
Caudal colliculus

Figure 1

Specimen collection for multiple sampling of nonambulatory ("downer") cattle

While whole brain specimens should be collected for BSE surveillance, partial brain specimens from multiple samplings of nonambulatory cattle at slaughter plants are acceptable. These samples can be collected using an abbreviated technique and a special brain tool developed in Great Britain. With this technique, a portion of the brain stem (medulla with part of the cranial cervical spinal cord and pons) and cerebellum are severed and taken from the cranial cavity via the foramen magnum with the special brain tool. Other portions of the brain can be also taken with this technique, if needed. Once the specimens are removed from the cranial cavity, one third of the cerebellum and an approximate half inch portion of the cranial cervical spinal cord are placed in a plastic bag for possible western blot or microbiological studies. The remainder of the brain stem and cerebellum are placed in formalin for histopathology.

Packaging and Shipping:

Shipping kits are sent out from the NVSL for packaging and shipping BSE samples. Kits for a single specimen contain two 480 ml jars of formalin and also include the appropriate submission forms and labeling stickers for the outer container. Kits for multiple samples contain twelve 180 ml jars. These kits should provide adequate protection from breakage during transit. Individual jars should have tape applied to the lids and absorbent material should be placed around each jar before inserting into a leak proof bag. Fresh tissue samples must be sent in shipping containers that meet requirements in International Air Transport Association (IATA) Packing Instruction (PI) 650. Specimens should be shipped to the NVSL overnight and shipping costs charged to the appropriate Emergency Programs account number.

H. PACKAGING AND LABELING SPECIMENS FOR SHIPMENT TO THE NVSL

Regulations

A new final rule by the U.S. Department of Transportation (DOT) became effective February 14, 2003. The new rule changes the definition, packaging, and shipping of diagnostic specimens. Diagnostic specimens, previously exempt from regulation, will now be listed in the Hazardous Materials Tables of Title 49 CFR and depending on risk group, will be subject to the new rules. A diagnostic specimen is defined as "any human or animal material including excreta, secreta, blood and its components, tissue, and tissue-infected fluids being transported for diagnostic or investigational purposes, but excluding live infected humans or animals." Plates or cultures of bacterial or viral organisms are not included in the definition of "Diagnostic Specimens" and must be shipped under more stringent requirements and regulations. Diagnostic specimens must be packaged in accordance with IATA PI 650. U.S. Postal Service regulations for shipments of hazardous materials include requirements for the shipments of "Diagnostic Specimens" sent through the mail. United States Postal Service 39 CFR Part 111 became effective on June 12, 2003.

IATA PI 650 states that "Diagnostic Specimens" must be packaged in triple packaging consisting of a primary receptacle, a secondary container, and an outer container capable of withstanding a 1.2 meter drop test.

a. A primary receptacle is defined as the primary vessel containing a sample or specimen, (e.g., tube, vial, ampoule). Primary receptacles must be leak proof and must not contain more than 500 ml. Primary receptacles containing solid substances must be siftproof and must not contain more than 500 gm. Multiple primary containers must be packed in secondary packaging in such a way that under normal conditions of transport, they cannot break, be punctured, or leak their contents into the secondary packaging. They should be individually wrapped or separated to prevent contact between them.

b. Secondary packaging that contains a primary receptacle(s) must be leak proof. There must be absorbent material placed between the primary receptacles and the secondary packaging in sufficient quantity to absorb the entire contents of the primary receptacles. Absorbent material is not required for shipments of solid substances.

c. Either the primary receptacle or the secondary packaging must be able to withstand, without leakage, an internal pressure producing a pressure differential of not less than 95 kPa for liquid substances transported by air.

d. The outer packaging must be capable of successfully withstanding a 1.2 meter drop test. The outer package containing liquid diagnostic specimens must not contain more than 4L (1 gallon). The outer package must not contain more than 4 kg (8.8 lbs) for shipments of solid substances.

e. There must be an itemized list of contents enclosed between the secondary packaging and the outer packaging. A Shipper's Declaration of Dangerous Goods is not required.

f. The outer packaging must be marked with the text "DIAGNOSTIC SPECIMENS".

U.S. Department of Transportation 49 CFR 171-178, Effective February 14, 2003
U.S. Postal Service 39 CFR 111, Effective June 12, 2003
International Air Transport Association (IATA) Dangerous Goods Regulations, 46th Edition, Effective January 1, 2004

General Considerations

a. For serological testing, submit one tube containing 2 ml of clear serum per animal for each test requested.

b. Pack fresh and formalin-fixed specimens separately. Formalin-fixed tissues are exempt from the new regulations governing "diagnostic specimens", but should be packaged in leak proof containers with adequate absorbent material. Fresh tissues must be shipped in accordance with packing requirements for the shipment of diagnostic specimens. Refer to IATA PI 650 as outlined previously.

c. Prelabel specimen containers to insure all recommended specimens will be collected.

d. Fresh specimens:

(1) Fresh tissues must be packaged as required by IATA PI 650. Refrigerate tissues using pre frozen ice packs if samples will reach the laboratory within 24 hours.

(2) Each tube should be individually labeled and arranged in numerical order starting with 1, 2, 3...N. Animal identification numbers may be written on tubes in addition to numerical numbers, but should not be used as the only means of tube identification.

(3) If tissues or swabs are to be in transit more than 48 hours, use dry ice unless agents should not be frozen. Dry ice must be placed outside the secondary packaging. Interior support must be provided to secure the secondary packaging in the original position after the dry ice has been dissipated. Outer packages containing specimens shipped on dry ice must permit the release of carbon-dioxide gas. Note that CO_2 gas can inactivate some viruses and prohibit isolation. Do not freeze or use dry ice in boxes that contain formalized tissues.

e. Formalin-fixed specimens may be shipped in the jars containing the 10% formalin solution. Alternatively, the tissue may be removed from the liquid and placed in a leak-proof bag with a formalin soaked cotton ball, provided that the tissues remained in the 10% formalin for at least 3 hours.

f. "Biological materials" include all specimens or reagents sent to the FADDL at Greenport, NY, or the DBL, DVL, and PL at Ames.

g. "Specimens" include, but are not limited to: excreta, secreta, blood and its components, tissue and tissue fluids, organs, animal parts, tissue cultures, viruses, or other microorganisms (either infectious or inactivated), but excluding live animals.

h. An approved exterior container for shipments of diagnostic specimens must meet the requirements as stated in IATA PI 650.

I. METHODS FOR SHIPPING SPECIMENS TO THE DBL, DVL, AND PL

Specimens can be sent by various methods. The most expeditious method depends on the area of the country from which the shipment is being sent. Always contact the carrier that you are using and they will provide you with information on what type of shipments they will handle. U.S. Postal Service 39 CFR 111 permits the shipment of "Diagnostic Specimens" in risk groups 2 and 3 through the mail; however, they must be sent as First-Class Mail, Priority Mail, or Express Mail. They must be packaged in triple packaging as described previously. Ship to:

National Veterinary Services Laboratories
1800 Dayton Avenue
Ames, IA 50010

For isolation of fastidious bacterial genera, such as Haemophilus and Taylorella, specimens should be shipped overnight.

J. TRAINING AVAILABLE AT THE NVSL/CVB

Training for a wide variety of laboratory diagnostic techniques, including clinical aspects, gross pathology, and diagnosis of specific program diseases is available at the NVSL/CVB. A training application and a listing of the courses available at the NVSL/CVB can be found on the web site at http://www.aphis.usda.gov/vs/nvsl/. This information, as well as a course outline, can also be obtained by contacting the NVSL/CVB Training Office by telephone at (515) 663-7501/7475, by facsimile at (515) 663-7332, or by mail at the following address:

Training Office
USDA, APHIS, VS, NVSL/CVB
P.O. Box 844
Ames, IA 50010-0844

There will be a fee for most of the training provided by the NVSL/CVB-Ames and NVSL-FADDL.

Training courses dealing with specific Veterinary Services (VS) programs, e.g., brucellosis epidemiology, pseudorabies, foreign animal diseases, etc., are provided in cooperation with VS, Professional Development Staff (PDS) in Riverdale, Maryland. For information on these courses, contact the VS Staff by telephone at (301) 734-5750, by facsimile at (301) 734-4964, web site: aphis.usda.gov/vs/training_catalogs.htm/ or by mail at the following address:

USDA, APHIS, Veterinary Services
Professional Development Staff
4700 River Road, Unit 27
Riverdale, MD 20737

PLEASE READ--

IMPORTANT INFORMATION

Diagnostic Bacteriology Laboratory

DBL/SERO	(515) 663-7568
DBL/BI	(515) 663-7568
DBL/MB	(515) 663-7388

Diagnostic Virology Laboratory

DVL/EO	(515) 663-7551
DVL/BP	(515) 663-7551
DVL/AV	(515) 663-7551

User Fee Section (515) 663-7550/7571

Pathobiology Laboratory

PL/GPPI	(515) 663-7521
PL/PCP	(515) 663-7521
PL/CAS	(515) 663-7542

Biologics and Materials Processing Section

Receiving	(515) 663-7212
Shipping	(515) 663-7530

NOTE!

Please note that certain disease agents have more than one serotype, subtype, strain, group, etc., and that the listed user fee is per serotype, subtype, strain, group, etc. For example, vesicular stomatitis (VS) has two strains--New Jersey and Indiana; therefore, a complement fixation (CF) test for VS would be billed at two times the CF fee.

TABLE OF ABBREVIATIONS

AFS = Acid fast stain

AGGL = Agglutination

AGID = Agar gel immunodiffusion

ASC = Antimicrobial susceptibility

AV = Avian virology

BI = Bacterial identification section

BIOCHEM = Biochemistry

BAPA = Buffered acidified plate antigen presumptive test

BP = Bovine and Porcine virology

BRT = Brucellosis ring test

CARD = Card test

CAS = Chemistry and Analytical Services

CELISA = Competitive enzyme-linked immunosorbent assay

CF = Complement fixation

CHEM = Chemistry (laboratory procedure)

CI = Chicken inoculation

COLOR = Colorimetric

CSF = Cerebrospinal fluid

DFA = Direct fluorescent antibody

DNA FP = DNA fingerprinting

DBL = Diagnostic Bacteriology Laboratory

DVL = Diagnostic Virology Laboratory

EDTA = Ethylenediaminetetraacetic acid

ELISA = Enzyme-linked immunosorbent assay

EM = Electron microscopy

EO = Equine and Ovine virology

EtOH = Ethyl alcohol

FATST = Fluorescent antibody tissue section test

FECX = Fecal examination

FPA = Fluorescence polarization assay

FORM = Formalin (10% buffered)

GA = Genetic analysis

GC/MS = Gas chromatography/mass spectroscopy

GDPT = Gel diffusion precipitin test

GI = Gamma interferon

GLC = Gas liquid chromatography

GPPI = General Pathology and Pathology Investigations

GRAVI = Gravimetric

HI = Hemagglutination-inhibition

HIRT = Heat-inactivated ring test

HISTO = Histopathology

HPLC = High performance liquid chromatography

ICP = Inductively coupled plasma spectroscopy

IDENT = Identification

IFA = Indirect fluorescent antibody

IgM = Immunoglobulin M

IHC = Immunohistochemistry

IPA = Isopropyl alcohol

IPT = Immunoperoxidase test

IPTVN = Immunoperoxidase test virus neutralization

ISO & ID = Isolation and identification

ISO SPEC = Special isolation

LAT = Latex agglutination test

LN2 = Liquid nitrogen

MAT = Microscopic agglutination test

MB = Mycobacteria and Brucella

ME = Mercaptoethanol

MICRO = Microscopy

MTD = Mycobacteria tuberculosis direct test

MX = Microscopic examination

NI = Neuraminidase inhibition

PCFIA = Particle concentration fluorescence immunoassay

PCP = Parasitology and Clinical Pathology

PCR = Polymerase chain reaction

PFGE = Pulse field gel electrophoresis

PHAGE TY = Phage typing

PL = Pathobiology Laboratory

PRCV = Porcine respiratory coronavirus

RAP = Rapid presumptive test

RRT = Realtime reverse transcriptase

SERO = Serology section

SEROTYP = Serotyping

SI = Sheep inoculation

SPT = Standard plate agglutination test

STT = Standard tube agglutination test

VI = Virus isolation

VN = Virus neutralization

WBlot = Western Blot

NVSL-AMES DIAGNOSTIC TESTING MANUAL

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Diagnostic Testing

	Procedure	Specimens	Shipping Preservative	User Fee Code	On Test Days	Min. Test Time (Days)	Testing Lab	Comments
Actinobacillus pleuropneumoniae								
	IDENT	Culture	None	900	M-F	10	DBL/BI	
	ISOLATION	Tissue	Ice pack	901	M-F	10	DBL/BI	
Adenovirus								
	IFA	Serum	Ice pack	617	M-F	1	DVL/BP	Two ml minimum, bovine or porcine
	VI	Tissue, swab	Ice pack	832	M-F	15	DVL/BP	Bovine or porcine
Aflatoxin								
	ELISA	Feed	None	939	M-F	6	PL/CAS	Screening and quantitation
Aino**								
	VN	Serum	Ice pack	607	M, F	4	DVL/EO	Contact laboratory before shipment--(515) 663-7551.
Akabane**								
	VN	Serum	Ice pack	607	M, F	4	DVL/EO	Two ml minimum
Anaplasmosis								
	CARD	Serum	Ice pack	613	M-F	1	DBL/SERO	Two ml minimum, Anaplasma marginale, cervidae
	CELISA	Serum	Ice pack	615	M-F	1	DBL/SERO	Two ml minimum, Anaplasma marginale, cattle
	CF	Serum	Ice pack	601	Tu, Th	1	DBL/SERO	Two ml minimum, Anaplasma marginale, cattle
	MX	Blood	EDTA	621	M-F	1	PL/PCP	Send whole blood on wet ice
Anthrax								
	IDENT	Culture	None	900	M-F	5	DBL/BI	Bacillus anthracis
	ISOLATION	Blood	Clotted	901	M-F	5	DBL/BI	
	ISOLATION	Food	None	812	M-F	5	DBL/BI	
Aquaculture-related bacterial diseases								
				897	Call	10	DBL/BI	Contact laboratory for arrangements--(515) 663-7565.

*** PRICE VARIES, PLEASE CONTACT LABORATORY.**

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Procedure	Specimens	Shipping Preservative	User Fee Code	On Test Days	Min. Test Time (Days)	Testing Lab	Comments
Avian adenovirus							
VI	Tissue, swab	Dry ice	832	M-F	15	DVL/AV	Chicken embryo lethal orphan
Avian adenovirus 127							
HI	Serum	Ice pack	603	M-F	1	DVL/AV	One ml minimum. Egg drop syndrome 76
VI	Tissue, swab	Dry ice	832	M-F	15	DVL/AV	
Avian adenovirus group 1							
AGID	Serum	Ice pack	611	M-F	1	DVL/AV	One ml minimum
Avian adenovirus group 2							
AGID	Serum	Ice pack	611	M-F	1	DVL/AV	One ml minimum. Hemorrhagic enteritis virus of turkeys, marble spleen disease of pheasants
Avian encephalomyelitis							
AGID	Serum	Ice pack	611	M-F	1	DVL/AV	One ml minimum
VI	Tissue	Dry ice	832	M-F	20	DVL/AV	
Avian herpesvirus							
IFA	Serum	Ice pack	617	M-F	1	DVL/AV	One ml minimum (Infectious laryngotracheitis virus)
VI	Tissue	Dry ice	832	M-F	15	DVL/AV	
Avian infectious bronchitis							
HI	Serum	Ice pack	603	M-F	2	DVL/AV	Two ml minimum. Four strains (JMK, Mass, Ark, and Conn); user fee is per strain.
VI	Tissue, swab	Dry ice	832	M-F	20	DVL/AV	
Avian influenza**							
AGID	Serum	Ice pack	611	M-F	1	DVL/AV	Two ml minimum. Fowl plague
HI / NI	Serum	Ice pack	603	M-F	1	DVL/AV	Two ml minimum, includes HI and NI tests. Fifteen H subtypes available, user fee is per H subtype.
RRT-PCR	Swab	Dry ice	897	M-F	1	DVL/AV	
VI	Tissue, swab	Dry ice	832	M-F	5	DVL/AV	

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	Procedure	Specimens	Shipping Preservative	User Fee Code	On Test Days	Min. Test Time (Days)	Testing Lab	Comments
Avian metapneumovirus								
	ELISA	Serum	Ice pack	615	M-F	1	DVL/AV	One ml minimum. Subgroup A (UK strain), subgroup B (Hungarian strain) and US-Colorado strain, Colorado avian pneumovirus.
	IFA	Serum	Ice pack	617	M-F	1	DVL/AV	One ml minimum.
	VI/PCR	Tissue	Dry ice	897	M-F	15	DVL/AV	
Avian nephritis								
	IFA	Serum	Ice pack	617	M-F	1	DVL/AV	One ml minimum
	VI	Tissue	Dry ice	832	M-F	15	DVL/AV	
Avian paramyxovirus type 1**								
	HI	Serum	Ice pack	603	M-F	1	DVL/AV	Two ml minimum. Paramyxovirus type 1
	RRT-PCR	Swab	Dry ice	897	M-F	1	DVL/AV	
	VI	Hatching eggs	Ice pack	832	M-F	5	DVL/AV	Do not freeze.
	VI	Tissue, swab	Dry ice	832	M-F	5	DVL/AV	
Avian paramyxovirus types 2-9								
	HI	Serum	Ice pack	603	M-F	1	DVL/AV	One ml minimun
	VI	Tissue, swab	Dry ice	832	M-F	5	DVL/AV	
Avian reovirus								
	IFA	Serum	Ice pack	617	M-F	1	DVL/AV	One ml minimum. Fahey-Crawley, infectious synovitis, viral arthritis
	VI	Tissue	Dry ice	832	M-F	15	DVL/AV	
Avian rotavirus								
	EM	Tissue	Dry ice	897	M-F	5	DVL/AV	
Avian safety test								
	CI	Varies	Dry ice	963	M-F	30	DVL/AV	
Bacterial identification								
	IDENT	Culture	None	900	M-F	10	DBL/BI	
Bacterial isolation								
	ISOLATION	Various	Various	901	M-F	10	DBL/BI	

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	Procedure	Specimens	Shipping Preservative	User Fee Code	On Test Days	Min. Test Time (Days)	Testing Lab	Comments
Blood smears								
	MX	Blood	EDTA	621	M-F	1	PL/PCP	Giemsa-stained for Anaplasma, Babesia, and trypanosomes
Blue eye paramyxovirus**								
	HI	Serum	Ice pack	603	M-F	2	DVL/BP	Two ml minimum, porcine BEP
	VI	Tissue, swab	Ice pack	832	M-F	21	DVL/BP	
Bluetongue								
	AGID	Serum	Ice pack	611	M, W	2	DVL/EO	Two ml minimum
	CELISA	Serum	Ice pack	615	M, W	1	DVL/EO	Two ml minimum
	CF	Serum	Ice pack	601	Tu, Th	2	DVL/EO	Two ml minimum
	PCR	Blood, spleen	Ice pack	897	Varies	3	DVL/EO	Four ml minimum, collect whole blood in EDTA or heparin; do not freeze blood, refrigerate
	VI	Blood, spleen	Ice pack	832	W,Th,	35	DVL/EO	Heparinized or EDTA blood, tissue, spleen, washed RBCs; do not freeze blood, refrigerate
	VI	Semen	Dry ice	832	W,Th,	14	DVL/EO	Keep frozen; test 0.5 ml non-extended semen or equivalent
	VN	Serum	Ice pack	607	Tu, F	5	DVL/EO	Two ml minimum. Five serotypes, user fee is per serotype
Botulism								
	IDENT	Various	Various	904	M-F	10	DBL/BI	Clostridium botulinum, toxin typing, must be kept frozen
	ISOLATION	Various	Various	901	M-F	10	DBL/BI	Clostridium botulinum
Bovine herpesvirus 1								
	VI	Semen	Dry ice, LN2	832	M-F	15	DVL/BP	Must be kept frozen
	VI	Tissue, blood	Ice pack	832	M-F	15	DVL/BP	
	VN	Serum	Ice pack	607	Th	4	DVL/BP	Two ml minimum
Bovine herpesvirus 2								
	VI	Tissue	Ice pack	832	M-F	15	DVL/BP	
	VN	Serum	Ice pack	607	M-F	4	DVL/BP	Two ml minimum

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	Procedure	Specimens	Shipping Preservative	User Fee Code	On Test Days	Min. Test Time (Days)	Testing Lab	Comments
Bovine herpesvirus 4								
	IFA	Serum	Ice pack	617	M-F	3	DVL/BP	Two ml minimum. DN599, MOVAR, bovine cytomegalovirus
	VI	Tissue	Ice pack	832	M-F	15	DVL/BP	
Bovine leukosis								
	AGID	Serum	Ice pack	611	M-F	2	DVL/EO	Two ml minimum
	ELISA	Serum	Ice pack	615	M, W	1	DVL/EO	Two ml minimum
Bovine papular stomatitis								
	IFA	Serum	Ice pack	617	M-F	3	DVL/BP	Two ml minimum
	VI	Tissue	Ice pack	832	M-F	15	DVL/BP	
Bovine parvovirus								
	IFA	Serum	Ice pack	617	M-F	3	DVL/BP	Two ml minimum
	VI	Tissue	Ice pack	832	M-F	15	DVL/BP	
Bovine respiratory syncytial virus								
	VI	Tissue, swab	Ice pack	832	M-F	15	DVL/BP	Special transport medium recommended. Contact laboratory (515) 663-7551.
	VN	Serum	Ice pack	607	Th	6	DVL/BP	Two ml minimum
Bovine spongiform encephalopathy								
	HISTO	Block/brain stem	None	NA	M-F	2	PL/GPPI	Formalin fixed - paraffin-embedded tissue blocks
	HISTO	Fixed tissue/brain stem	Formalin	NA	M-F	8	PL/GPPI	Brain stem essential for all submissions
	HISTO	Slide/brain stem	None	NA	M-F	1	PL/GPPI	Slide stained with hematoxylin and eosin
	IHC	Block/brain stem	None	NA	M-F	3	PL/GPPI	Formalin fixed - paraffin-embedded tissue blocks
	IHC	Fixed tissue/brain stem	Formalin	NA	M-F	8	PL/GPPI	Brain stem essential for all submissions
	IHC	Slide/brain stem	None	NA	M-F	1	PL/GPPI	Contact laboratory (515) 663-7521

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	Procedure	Specimens	Shipping Preservative	User Fee Code	On Test Days	Min. Test Time (Days)	Testing Lab	Comments
Bovine viral diarrhea								
	PCR	Virus isolate	Ice pack	897	M-F	21	DVL/BP	Mucosal disease--differential for types I and II
	VI	Various	Ice pack	832	M-F	15	DVL/BP	Tissue, swab, blood, or serum (DO NOT FREEZE WHOLE BLOOD)
	VN	Serum	Ice pack	607	Th	4	DVL/BP	Two ml minimum. Types I and II, user fee is per type
Brucella abortus								
	BAPA	Serum	Ice pack	612	M-F	1	DBL/SERO	Bang's disease, two ml minimum
	BRT	Milk	Ice pack	923	M-F	3	DBL/MB	Two ml minimum
	CARD	Serum	Ice pack	613	M-F	1	DBL/SERO	Two ml minimum, bovine and porcine
	CF COLD	Serum	Ice pack	601	M-Th	2	DBL/SERO	Two ml minimum
	CF WARM	Serum	Ice pack	601	M-F	1	DBL/SERO	Two ml minimum
	ELISA	Serum	Ice pack	615	M-F	1	DBL/SERO	Two ml minimum
	FPA	Serum	Ice pack	898	M-F	1	DBL/SERO	Two ml minimum
	HIRT	Milk	Ice pack	924	M-F	3	DBL/MB	Five ml minimum
	PCFIA	Serum	Ice pack	929	M-F	1	DBL/SERO	Two ml minimum
	PLATE,SPT	Serum	Ice pack	622	M-F	1	DBL/SERO	Two ml minimum
	RAP	Serum	Ice pack	930	M-F	1	DBL/SERO	Two ml minimum
	RIVANOL	Serum	Ice pack	623	M-F	1	DBL/SERO	Two ml minimum
	TUBE	Semen	Ice pack	624	M-W	3	DBL/SERO	Two ml minimum
	TUBE,STT	Serum	Ice pack	624	M-W	3	DBL/SERO	Two ml minimum
	WBLOT	Serum	Ice pack	899	T,W,T	2	DBL/SERO	Two ml minimum
Brucella canis								
	ELISA	Serum	Ice pack	615	M-F	1	DBL/SERO	Two ml minimum
	ME TUBE	Serum	Ice pack	624	M-W	3	DBL/SERO	Two ml minimum
Brucella melitensis								
	3 % CARD	Serum	Ice pack	613	M-F	1	DBL/SERO	Two ml minimum
Brucella ovis								
	CF	Serum	Ice pack	601	M-F	1	DBL/SERO	Two ml minimum
	ELISA	Serum	Ice pack	615	M-F	1	DBL/SERO	Two ml minimum

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Brucellosis								
	IDENT	Culture	None	900	M-F	7	DBL/MB	
	ISOLATION	Various	Dry ice	901	M-F	10	DBL/MB	Tissue, milk, semen, etc.
	PCR	Culture	None	812	M-F	1	DBL/MB	
	TYPING	Culture	None	919	M-F	5	DBL/MB	Phage typing
Cache Valley								
	VN	Serum	Ice pack	607	M, F	4	DVL/EO	Two ml minimum
Calicivirus								
	VI	Tissue	Ice pack	832	M-F	25	DVL/BP	San Miguel sea lion virus
	VN	Serum	Ice pack	607	M-F	5	DVL/BP	Nine serotypes, user fee is per serotype.
Campylobacteriosis								
	IDENT	Culture	None	900	M-F	20	DBL/BI	
	ISOLATION	Tissue	Ice pack	901	M-F	10	DBL/BI	
Caprine arthritis encephalitis								
	AGID	Serum	Ice pack	611	M, W	2	DVL/EO	Two ml minimum
	ELISA	Serum	Ice pack	615	M, W	2	DVL/EO	
Carbonate/silicate disinfectants								
	TITRATION	Disinfectant	None	956	M-F	2	PL/CAS	
Chicken anemia virus								
	IFA	Serum	Ice pack	617	M-F	1	DVL/AV	One ml minimum
Chlamydia psittaci								
	CF	Serum	Ice pack	601	F	1	DVL/EO	Two ml minimum, ornithosis, parrot fever, enzootic ovine abortion
	ISOLATION	Various	Ice pack	832	Tu, F	14	DVL/AV	Tissue, swab, and feces. Do not freeze specimens for isolation.
Chronic wasting disease								
	HISTO	Block/brain stem	None	NA	M-F	2	PL/GPPI	Formalin fixed - paraffin-embedded tissue blocks
	HISTO	Fixed tissue/brain stem	Formalin	NA	M-F	8	PL/GPPI	Brain stem is essential for all submissions
	HISTO	Slide/brain stem	None	NA	M-F	1	PL/GPPI	Slide stained with hematoxylin and eosin

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Chronic wasting disease								
	IHC	Block tissues	None	NA	M-F	3	PL/GPPI	Formalin fixed - paraffin-embedded tissue blocks. Whenever possible retropharyngeal lymph node and tonsil should also be submitted.
	IHC	Fixed tissue/brain stem	Formalin	NA	M-F	8	PL/GPPI	Brain stem is essential for all submissions. Whenever possible retropharyngeal lymph node and tonsil should also be submitted.
	IHC	Slides	None	NA	M-F	1	PL/GPPI	Contact laboratory (515) 663-7521
Clostridium chauvoei								
	IDENT	Culture	None	900	M-F	10	DBL/BI	Blackleg
	ISOLATION	Tissue	Ice pack	901	M-F	10	DBL/BI	
Clostridium perfringens								
	IDENT	Culture	None	904	M-F	10	DBL/BI	Toxin typing
	IDENT	Int'l contents	Ice pack	904	M-F	10	DBL/BI	Toxin identification, must be kept frozen
	ISOLATION	Tissue	Ice pack	901	M-F	10	DBL/BI	Enterotoxemia
Coccidia								
	IDENT	Feces	Fresh/form	NA	M-F	1	PL/PCP	Identification of coccidia in fecal sample
Contagious ecthyma								
	CF	Serum	Ice pack	601	Tu, Th	2	DVL/EO	Two ml minimum, orf, contagious pustular dermatitis
	EM	Lesion	Ice pack	897	Varies	2	DVL/EO	Lesions suggestive of FMD must be submitted to FADDL.
Contagious equine metritis								
	CF	Serum	Ice pack	601	M-Th	2	DBL/SERO	Two ml minimum, Taylorella equigenitalis
	ISO & ID	Swab, culture	Ice pack	812	M-F	7	DBL/BI	Taylorella equigenitalis. Swab must be received refrigerated within 48 hrs of collection, in Amies transport medium + charcoal.
Coronavirus								
	ELISA	Serum	Ice pack	615	M-F	5	DVL/BP	Two ml minimum, TGE/PRCV differential (two user fee charges per serum)
	FATST	Tissue	Ice pack	921	M-F	2	DVL/BP	For TGE
	IFA	Serum	Ice pack	617	M-F	1	DVL/BP	Bovine only

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Coronavirus	VI	Tissue, feces	Ice pack	832	M-F	15	DVL/BP	Bovine or porcine
	VN	Serum	Ice pack	607	M-F	4	DVL/BP	Two ml minimum TGE only
Corynebacterium								
	IDENT	Culture	None	900	M-F	10	DBL/BI	
	ISOLATION	Tissue	Ice pack	901	M-F	10	DBL/BI	
Coryza, infectious								
	IDENT	Culture	None	900	M-F	20	DBL/BI	Haemophilus paragallinarum
	ISOLATION	Tissue, swab	Ice pack	901	M-F	20	DBL/BI	
Coryza, turkey								
	IDENT	Culture	None	900	M-F	10	DBL/BI	Bordetella avium
	ISOLATION	Tissue, swab	Ice pack	901	M-F	10	DBL/BI	
Cryptosporidium								
	DFA	Feces	Fresh/form	621	M-F	1	PL/PCP	
Cysticercosis								
	IDENT	Tissue	Formalin	NA	M-F	2	PL/PCP	
Dourine								
	AGID	Serum	Ice pack	611	M-F	2	DBL/SERO	Two ml minimum, Trypanosoma equiperdum
	CF	Serum	Ice pack	601	M-F	1	DBL/SERO	Two ml minimum, Trypanosoma equiperdum
	MX	Blood	EDTA	621	M-F	1	PL/PCP	
Duck viral enteritis								
	IFA	Serum	Ice pack	617	M-F	1	DVL/AV	Two ml minimum
	VI	Tissue	Dry ice	832	M-F	15	DVL/AV	
	VN	Serum	Ice pack	607	M-F	10	DVL/AV	Two ml minimum
Electron microscopy								
	EM	Various	Dry ice	897	M-F	2	DVL/EO	Tissue culture isolates, intestinal contents, lesions

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Procedure	Specimens	Shipping Preservative	User Fee Code	On Test Days	Min. Test Time (Days)	Testing Lab	Comments
Elemental analysis							
ICP	Various	Ice pack	820	M-Th	3	PL/CAS	Screen - serum, blood, urine (two ml minimum); tissue, feed, and water
ICP	Various	Ice pack	821	M-Th	3	PL/CAS	Single element - serum, blood, urine (two ml minimum); tissue, feed, and water
Encephalomyocarditis							
VI	Tissue	Ice pack	832	M-F	15	DVL/BP	Heart, lung, liver, or kidney
VN	Various	Ice pack	607	M-F	4	DVL/BP	Two ml minimum--serum
Enterovirus							
IFA	Serum	Ice pack	617	M-F	1	DVL/BP	8 groups, user fee is per group
VI	Tissue	Ice pack	832	M-F	25	DVL/BP	SMEDI (Stillbirth, mummification, embryonic death & infertility), PEV and BEV (porcine & bovine enteroviruses)
VN	Viral isolate	Ice pack	607	Th-F	10	DVL/BP	Differentiation of PEV groups 1-7 only (user fee is per group). If viral isolate is other than group 1-7 virus isolation charges may apply.
Eperythrozoonosis							
MX	Blood	EDTA	621	M-F	3	PL/PCP	
Epizootic hemorrhagic disease							
AGID	Serum	Ice pack	611	M, W	2	DVL/EO	Two ml minimum
CF	Serum	Ice pack	601	Tu, Th	2	DVL/EO	Two ml minimum
PCR	Blood, spleen	Ice pack	897	Varies	3	DVL/EO	Do not freeze, refrigerate whole blood collected in EDTA or heparin.
VI	Blood, spleen	Ice pack	832	W, Th	24	DVL/EO	Whole blood collected in EDTA or heparin. Do not freeze. Ship refrigerated overnight
VI	Semen	Dry ice	832	W, Th	24	DVL/EO	Keep frozen; test 0.5 ml non-extended semen or equivalent
VN	Serum	Ice pack	607	Tu, F	5	DVL/EO	Two ml minimum, type 1, 2. User fee is per serotype.
Equine adenovirus							
VI	Nasal swabs, tracheal wash	Dry ice	832	Varies	14	DVL/EO	

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Equine adenovirus							
VN	Serum	Ice pack	607	M, F	4	DVL/EO	Two ml minimum, equine
Equine encephalomyelitis							
CF	Serum	Ice pack	601	W	2	DVL/EO	Two ml minimum, user fee is per strain
HI	Serum	Ice pack	603	W	2	DVL/EO	Two ml minimum, user fee is per strain
IgM ELISA	Serum	Ice pack	615	M-Th	2	DVL/EO	Two ml minimum, user fee is per strain
PCR	Brain	Dry ice	897	Varies	3	DVL/EO	Multiplex procedure detects EEE, WEE, and WNV. May ship refrigerated overnight.
VI	Brain, CSF, whole blood	Dry ice	832	Varies	14	DVL/EO	Must perform rabies test on mammalian brain tissue prior to submission. Fresh tissue may be sent on wet ice overnight. Whole blood should be shipped refrigerated. Sample of choice is fresh brain tissue.
VN	Serum	Ice pack	607	Tu	4	DVL/EO	Two ml minimum, Eastern, Western, and Venezuelan, user fee is per strain
Equine herpesvirus 1							
VI	Tissue, nasal swab, whole blood	Dry ice	832	Varies	14	DVL/EO	Ship whole blood refrigerated.
VN	Serum	Ice pack	607	M, F	4	DVL/EO	Two ml minimum
Equine herpesvirus 2							
VI	Swabs, whole blood	Dry ice	832	Varies	14	DVL/EO	Cytomegalovirus
VN	Serum	Ice pack	607	M, F	7	DVL/EO	Two ml minimum
Equine herpesvirus 3							
VI	Lesions, swabs	Dry ice	832	Varies	14	DVL/EO	Coital exanthema
VN	Serum	Ice pack	607	M, F	4	DVL/EO	Two ml minimum
Equine herpesvirus 4							
VI	Tissue, swab, whole blood	Dry ice	832	Varies	14	DVL/EO	Ship whole blood refrigerated
VN	Serum	Ice pack	607	M, F	4	DVL/EO	Two ml minimum, does not differentiate between herpesvirus 1 and 4.

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Equine infectious anemia								
	AGID	Serum	Ice pack	611	M-F	2	DVL/EO	Two ml minimum, no charge for confirmation of positives
	ELISA	Serum	Ice pack	615	M-F	1	DVL/EO	Two ml minimum
	WBLOT	Serum	Ice pack	897	M-F	2	DVL/EO	Contact laboratory for details--(515) 663-7551.
Equine influenza								
	HI	Serum	Ice pack	603	Th	2	DVL/EO	User fee is per antigen; three antigens are used for each HI.
	VI	Tissue, nasal swab	Dry ice	832	W, Th	20	DVL/EO	A1 - H7N7, A2 - H3N8 (Extra time required for isolate identification)
Equine rhinovirus								
	VI	Lung tissue, nasal swab	Dry ice	832	Varies	14	DVL/EO	Extra time required for isolate identification
	VN	Serum	Ice Pack	607	M, F	4	DVL/EO	Rhino 1 and 2 serotypes; user fee is per serotype
Equine viral arteritis								
	VI	Semen	Dry ice	832	Varies	14	DVL/EO	Ten ml minimum. Special requirements for export testing, contact laboratory for details--(515) 663-7551.
	VI	Tissue, swab, whole blood	Dry ice	832	Varies	14	DVL/EO	Ship whole blood refrigerated
	VN	Serum	Ice pack	607	M, F	4	DVL/EO	Two ml minimum
Erysipelas								
	IDENT	Culture	None	900	M-F	10	DBL/BI	Erysipelothrix rhusiopathiae
	ISOLATION	Tissue	Ice pack	901	M-F	10	DBL/BI	
External parasites								
	IDENT	Parasite	EtOH, IPA	NA	M-F	1	PL/PCP	Fleas, lice, mange, mites, myiasis, scabies, screwworms, ticks
Fetal bovine serum safety test								
	SI	Serum	Dry ice	610	F	35	DVL/EO	Contact State or Federal veterinarian for special requirements for testing before submitting serum.

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Fluke								
	IDENT	Parasite	EtOH, IPA	NA	M-F	1	PL/PCP	Species identification
Formaldehyde								
	COLOR	Biologicals	Ice pack	826	Tu	5	PL/CAS	
Fowl cholera								
	DNA FP	Culture	None	905	M-F	14	DBL/BI	
	GDPT	Culture	None	903	W-F	7	DBL/BI	Somatic antigen typing
	IDENT	Culture	None	900	M-F	10	DBL/BI	
	ISOLATION	Tissue	Ice pack	901	M-F	10	DBL/BI	Pasteurella multocida
Fowl pox								
	IFA	Serum	Ice pack	617	M-F	1	DVL/AV	One ml minimum. Avian pox
	VI	Tissue	Dry ice	832	M-F	15	DVL/AV	
Getah**								
	VI	Blood	Heparin	832	Varies	14	DVL/EO	Do not freeze, refrigerate.
Giardia								
	DFA	Feces	Fresh/form	621	M-F	1	PL/PCP	
Glanders								
	CF	Serum	Ice pack	601	M-F	1	DBL/SERO	Two ml minimum, Burkholderia mallei
	ELISA	Serum	Ice pack	615	M, Th	1	DBL/SERO	Two ml minimum
Goose parvovirus**								
	IFA	Serum	Ice pack	617	M-F	1	DVL/AV	Goose hepatitis, Derzsy's disease
	VI/PCR	Tissue	Dry ice	897	M-F	10	DVL/AV	
Heartwater**								
	PCR	Blood (EDTA)	Ice pack	897	M-F	4	DVL/BP	Testing done only for FAD investigations and importation of animals from other countries. Importation testing can take up to 14 days.
	PCR	Tissue	Ice pack	897	M-F	4	DVL/BP	
Hemagglutinating encephalomyelitis								
	HI	Serum	Ice pack	603	M-F	1	DVL/BP	Two ml minimum
	VI	Tissue	Ice pack	832	M-F	15	DVL/BP	Lung or brain
Histopathology								
	HISTO	Fixed tissue	Formalin	897	M-F	2	PL/GPPI	

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Ibaraki**								
	VN	Serum	Ice pack	607	Varies	4	DVL/EO	Testing done only for FAD investigations and importation of animals from other countries
Infectious bursal disease								
	AGID	Serum	Ice pack	611	M-F	1	DVL/AV	One ml minimum. Gumboro disease
	VI	Tissue	Dry ice	832	M-F	15	DVL/AV	
Infectious laryngotracheitis								
	IFA	Serum	Ice pack	617	M-F	1	DVL/AV	One ml minimum
	VI	Tissue	Dry ice	832	M-F	10	DVL/AV	
Internal parasites								
	FECX	Parasites	EtOH, IPA	621	M-F	1	PL/PCP	Coccidia, flukes, roundworms, and tapeworms
Israel turkey meningoencephalitis**								
	HI	Serum	Ice pack	603	M-F	10	DVL/AV	One ml minimum
	VI	Tissue	Dry ice	832	M-F	10	DVL/AV	
Johne's disease								
	AGID	Serum	Ice pack	611	M-W	2	DBL/SERO	Two ml minimum
	CF	Serum	Ice pack	601	W, F	1	DBL/SERO	Two ml minimum, Mycobacterium paratuberculosis
	DNA PROBE	Feces, culture	Ice pack	906	Call	5	DBL/MB	Test performed once a month--contact (515) 663-7388 for schedule.
	ELISA	Serum	Ice pack	615	W, F	1	DBL/SERO	Two ml minimum
	IDENT	Culture	None	910	M-F	60	DBL/MB	
	ISOLATION	Tissue, feces	Ice pack	914	M-F	120	DBL/MB	Bactec 460, Trek ESP, MGIT 960, HEY
	PCR	Culture	None	812	M-F	2	DBL/MB	
Klebsiella								
	IDENT	Culture	None	900	M-F	10	DBL/BI	Serotyping is not available
	ISOLATION	Tissue	Ice pack	901	M-F	10	DBL/BI	
Larvae								
	IDENT	Parasite	EtOH, IPA	NA	M-F	1	PL/PCP	ID to species

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Leptospirosis								
	MAT	Serum	Ice pack	605	W	5	DBL/BI	Samples must be received by 11:00 am on Wednesday for testing; additional charge for more than 5 serovars.
Lice								
	IDENT	Parasite	EtOH, IPA	NA	M-F	1	PL/PCP	ID to species
Listeriosis								
	IDENT	Culture	None	900	M-F	10	DBL/BI	Listeria spp.
	ISOLATION	Tissue	Ice pack	901	M-F	42	DBL/BI	
Maggots								
	IDENT	Parasite	EtOH, IPA	NA	M-F	1	PL/PCP	ID to species
Malignant catarrhal fever								
	IPT	Serum	Ice pack	936	Th	1	DVL/BP	Two ml minimum
	PCR	Blood	EDTA	897	M-F	14	DVL/BP	Differentiates between alcelaphine herpesvirus 1 and ovine herpesvirus 2
	PCR	Tissue	Ice pack	897	M-F	14	DVL/BP	Differentiates between alcelaphine herpesvirus 1 and ovine herpesvirus 2
	VN	Serum	Ice pack	607	Th	9	DVL/BP	Two ml minimum
Mange								
	IDENT	Parasite	EtOH, IPA	NA	M-F	1	PL/PCP	ID to species
	IDENT	Scrapings	Dry	NA	M-F	1	PL/PCP	ID to species
Marek's disease								
	AGID	Serum	Ice pack	611	M-F	1	DVL/AV	One ml minimum
Microscopy								
	MICRO	Feed, plant	None	826	M-F	3	PL/CAS	
	MICRO	Rumen contents	Ice pack	826	M-F	10	PL/CAS	
Mites								
	IDENT	Parasite	EtOH, IPA	NA	M-F	1	PL/PCP	ID to species
	IDENT	Scrapings	Dry	NA	M-F	1	PL/PCP	ID to species
Moisture								
	GRAVI	Biologicals	Ice pack	827	M-W	5	PL/CAS	

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Muscovy duck parvovirus								
	IFA	Serum	Ice pack	617	M-F	1	DVL/AV	
	VI/PCR	Tissue	Dry ice	897	M-F	10	DVL/AV	
Mycobacterium								
	AFS	Culture	None	898	M-F	1	DBL/MB	
	ASC	Culture	None	962	Call	7	DBL/MB	Mycobacterium tuberculosis complex
	BIOCHEM	Culture	None	910	W	30	DBL/MB	
	DNA FP	Culture	None	905	Call	30	DBL/MB	Contact laboratory for appointment--(515) 663-7388. RFLP or AFLP
	DNA PROBE	Culture	Various	906	M-F	1	DBL/MB	DNA probe
	GA	Culture	None	906	Call	5	DBL/MB	For sequencing, contact laboratory at (515) 663-7388.
	GI	Heparinized blood	Ice pack	897	T,W,T	2	DBL/MB	Must arrive within 24 hours of sample collection. Must be heparinized blood, not serum.
	GLC	Culture	None	911	M-F	2	DBL/MB	
	HISTO	Block containing lesion	None	897	M-F	1	PL/GPPI	Formalin fixed - paraffin-embedded tissue blocks
	HISTO	Fixed tissue containing lesion	Formalin	897	M-F	2	PL/GPPI	Tissues should not be decalcified
	HPLC	Culture	None	911	M-F	4	DBL/MB	
	IDENT	Culture	None	911	M-F	30	DBL/MB	Mycobacterium bovis and M. tuberculosis
	ISO SPEC	Fluid, swab	Ice pack	812	M-F	60	DBL/MB	Elephant trunk washings/swabs, nonhuman primate gastric lavages, etc.
	ISOLATION	Tissue	Na Borate	901	M-F	60	DBL/MB	Contact laboratory at (515) 663-7388 for details.
	MTD	Tissue, trunk wash	Ice pack	906	Call	1	DBL/MB	Nucleic acid amplification, performed once a month-contact (515) 663-7388 for schedule.
	PCR	Block containing lesion	None	897	M-F	7	PL/GPPI	Formalin fixed - paraffin-embedded tissue blocks, tissues should be in formalin less than 10 days

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Mycobacterium								
	PCR	Fixed tissue containing lesion	Formalin	897	M-F	10	PL/GPPI	Tissues should not be decalcified or be in formalin less than 10 days. Acid fast bacteria must be present to perform PCR testing.
Mycoplasma								
	HI	Serum	Ice pack	603	M-F	5	DBL/BI	Two ml minimum, Mycoplasma gallisepticum, M. meleagridis, and M. synoviae
	PLATE	Serum	Ice pack	622	M-F	5	DBL/BI	Two ml minimum, Mycoplasma gallisepticum, M. meleagridis, and M. synoviae
Myiasis								
	IDENT	Parasite	EtOH, IPA	NA	M-F	1	PL/PCP	ID of fly larvae to species
Nitrate/nitrite								
	ELECTRODE	Various	None	953	M-F	14	PL/CAS	Forage, feed, water
	HPLC	Serum, fluid	Ice pack	953	M-F	14	PL/CAS	Two ml minimum--serum and ocular fluid
Organic screen								
	GC/MS	Feed, extract, tissue	Ice pack	818	M-F	10	PL/CAS	Screen
	GC/MS	Feed, extract, tissue	Ice pack	819	M-F	10	PL/CAS	Confirmation of a suspected compound
Ornithobacterium rhinotracheale								
	IDENT	Culture	None	900	M-F	10	DBL/BI	ORT
	ISOLATION	Various	Various	901	M-F	15	DBL/BI	
Ovine progressive pneumonia								
	AGID	Serum	Ice pack	611	M-F	2	DVL/EO	Two ml minimum. Maedi
Parainfluenza-3								
	VI	Tissue, swab	Ice pack	832	M-F	15	DVL/BP	Nasal swab. Shipping fever, virus pneumonia
	VN	Serum	Ice pack	607	Th	4	DVL/BP	
Parasites								
	IDENT	Parasite	EtOH, IPA	NA	M-F	1	PL/PCP	ID to species

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Paratyphoid								
	TUBE	Serum	Ice pack	624	M-Th	2	DBL/SERO	Two ml minimum, Salmonella abortus-equi, equidae
Piroplasmosis, bovine								
	CF	Serum	Ice pack	601	Tu, Th	1	DBL/SERO	Two ml minimum. Babesia bovis and B. bigemina, user fee is per species.
	IFA	Serum	Ice pack	617	M-F	1	DBL/SERO	Two ml minimum. Babesia bovis and B. bigemina, user fee is per species.
	MX	Blood, smear	EDTA	621	M-F	1	PL/PCP	
Piroplasmosis, equine								
	CELISA	Serum	Ice pack	615	M-F	1	DBL/SERO	Two ml minimum. Babesia caballi and B. equi, user fee is per species.
	CF	Serum	Ice pack	601	M-F	1	DBL/SERO	Two ml minimum. Babesia caballi and B. equi, user fee is per species.
	IFA	Serum	Ice pack	617	M-F	1	DBL/SERO	Two ml minimum. Babesia caballi and B. equi, user fee is per species.
	MX	Blood, smear	EDTA	621	M-F	1	PL/PCP	
Porcine epidemic diarrhea**								
	PCR	Feces, tissue	Ice pack	897	M-F	4	DVL/BP	Testing done only for FAD investigations
Porcine parvovirus								
	FATST	Tissue	Ice pack	921	M-F	2	DVL/BP	Mummified fetal tissue
	HI	Various	Ice pack	603	M-F	1	DVL/BP	Serum or fetal fluid--two ml minimum
	VI	Tissue	Ice pack	832	M-F	15	DVL/BP	
Porcine polioencephalomyelitis**								
	VI	Tissue	Ice pack	832	M-F	15	DVL/BP	Additional charges for group identification of enteroviral isolates may apply, contact laboratory for pricing. (515) 663-7551
Porcine reproductive and respiratory syndrome								
	ELISA	Serum	Ice pack	615	M-F	1	DVL/BP	PRRS
	IFA	Serum	Ice pack	617	M-F	1	DVL/BP	US vs. European differentiation, two user fee charges per serum
	VI	Tissue, serum	Ice pack	832	M-F	25	DVL/BP	Two user fee charges if isolation on MARC-145 and SAM cell cultures.

*** PRICE VARIES, PLEASE CONTACT LABORATORY.**

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	Procedure	Specimens	Shipping Preservative	User Fee Code	On Test Days	Min. Test Time (Days)	Testing Lab	Comments
Potomac horse fever								
	IFA	Serum	Ice pack	617	W, Th	2	DVL/EO	Two ml minimum, Ehrlichia risticii
Pox								
	EM	Tissue	Ice pack	897	M-F	1	DVL/BP	ID virus in lesion
	VI	Tissue	Ice pack	832	M-F	21	DVL/BP	
Protein								
	BIURET	Various	Ice pack	826	W	5	PL/CAS	
	KJELDAHL	Various	Ice pack	827	M-W	3	PL/CAS	
Pseudocowpox								
	IFA	Serum	Ice pack	617	M-F	5	DVL/BP	Two ml minimum
	VI	Tissue	Ice pack	832	M-F	21	DVL/BP	
Pseudomonas								
	IDENT	Culture	None	900	M-F	10	DBL/BI	
	ISOLATION	Tissue	Ice pack	901	M-F	10	DBL/BI	
Pseudorabies								
	ELISA	Serum	Ice pack	615	M-F	1	DVL/BP	Two ml minimum. Screening or differential for g1. Aujeszky's disease, infectious bulbar paralysis, mad itch
	FATST	Tissue	Ice pack	921	M-F	1	DVL/BP	
	LAT	Serum	Ice pack	618	M-F	1	DVL/BP	Two ml minimum
	PCR	Tissue	Ice pack	897	M-F	5	DVL/BP	Trigeminal ganglion, contact laboratory before submitting--(515) 663-7551.
	VI	Tissue	Ice pack	832	M-F	15	DVL/BP	
	VN	Serum	Ice pack	607	M-F	3	DVL/BP	Two ml minimum
Psittacine herpesvirus								
	IFA	Serum	Ice pack	617	M-F	1	DVL/AV	One ml minimum
	VI	Swab	Dry ice	832	M-F	10	DVL/AV	
Pullorum-typhoid								
	AGGL	Serum	Ice pack	624	M-Th	2	DBL/BI	
	IDENT	Culture	None	900	M-F	10	DBL/BI	Pullorum disease will be reported to the State Veterinarian and NPIP Staff Veterinarian

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	Procedure	Specimens	Shipping Preservative	User Fee Code	On Test Days	Min. Test Time (Days)	Testing Lab	Comments
Q-fever								
	CF	Serum	Ice pack	601	Tu, Th	2	DVL/EO	Two ml minimum, Coxiella burnetti
Reovirus								
	IFA	Serum	Ice pack	617	M-F	2	DVL/BP	
	VI	Tissue	Ice pack	832	M-F	15	DVL/BP	Porcine only
Rotavirus								
	EM	Feces	Ice pack	897	M-F	1	DVL/BP	Identification
	FATST	Tissue	Ice pack	921	M-F	2	DVL/BP	
	IFA	Serum	Ice pack	617	M-F	1	DVL/BP	Bovine and porcine
	VI	Tissue, feces	Ice pack	832	M-F	21	DVL/BP	
Salmonella (all subspecies)								
	ISOLATION	Various	Various	901	M-F	15	DBL/BI	Includes S. pullorum
	PFGE	Culture	None	905	T-Th	3	DBL/BI	
	PHAGE TY	Culture	None	815	M-F	10	DBL/BI	Salmonella enteritidis phage typing
	PHAGE TY	Culture	None	919	M-F	10	DBL/BI	Salmonella typhimurium phage typing
	SEROTYP	Culture	None	817	M-F	10	DBL/BI	
Salmonella enteritidis								
	AGGL	Serum	Ice pack	624	M-F	1	DBL/BI	
Salmonella typhimurium								
	AGGL	Serum	Ice pack	624	M-Th	2	DBL/BI	
Scabies								
	IDENT	Parasite	EtOH, IPA	NA	M-F	1	PL/PCP	ID of mites to species
	IDENT	Skin scraping	Dry	NA	M-F	1	PL/PCP	ID of mites to species
Scrapie								
	HISTO	Block/brain stem	None	NA	M-F	2	PL/GPPI	Formalin fixed - paraffin-embedded tissue blocks
	HISTO	Fixed tissue/brain stem	Formalin	NA	M-F	2	PL/GPPI	Brain stem is essential for all submissions
	HISTO	Slide/brain stem	None	NA	M-F	2	PL/GPPI	Slide stained with hematoxlyin and eosin

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	Procedure	Specimens	Shipping Preservative	User Fee Code	On Test Days	Min. Test Time (Days)	Testing Lab	Comments
Scrapie								
	IHC	Block tissue	None	NA	M-F	3	PL/GPPI	Formalin fixed - paraffin-embedded tissue blocks. Whenever possible retropharyngeal lymph node and tonsil should also be submitted.
	IHC	Fixed tissue/brain stem	Formalin	NA	M-F	8	PL/GPPI	Brain stem is essential for all submissions. Whenever possible retropharyngeal lymph node and tonsil should also be submitted.
	IHC	Slides	None	NA	M-F	1	PL/GPPI	Contact laboratory (515) 663-7521
Screwworm								
	IDENT	Parasite	EtOH, IPA	NA	M-F	1	PL/PCP	ID of fly larvae to species
Serum screen								
	CHEM	Serum, blood	Ice pack	NA	M-F		PL/PCP	Contact laboratory--(515) 663-7521.
Shigellosis								
	IDENT	Culture	None	900	M-F	10	DBL/BI	
	ISOLATION	Tissue	Ice pack	901	M-F	10	DBL/BI	
Streptococcus								
	IDENT	Culture	None	900	M-F	10	DBL/BI	Including strangles
	ISOLATION	Tissue	Ice pack	901	M-F	10	DBL/BI	Including strangles
Swine influenza								
	HI	Serum	Ice pack	603	M-F	2	DVL/BP	Multiple serotypes. User fee is per serotype.
	HI/NI	Viral isolates	Dry ice	603	M-F	3	DVL/BP	For subtyping SIV isolates. User fee will be two HI charges per sample. If isolate is of insufficient viral titer, virus isolation charges may apply instead of HI charges.
	VI	Tissue	Ice pack	832	M-F	21	DVL/BP	
Tapeworm								
	FECX	Parasite	EtOH, IPA	NA	M-F	1	PL/PCP	ID of adult to species
Transmissible gastroenteritis								
	FATST	Tissue	Ice pack	921	M-F	2	DVL/BP	
	VI	Tissue	Ice pack	832	M-F	15	DVL/BP	

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	Procedure	Specimens	Shipping Preservative	User Fee Code	On Test Days	Min. Test Time (Days)	Testing Lab	Comments
Transmissible gastroenteritis								
	VN	Serum	Ice pack	607	M-F	5	DVL/BP	Two ml minimum
Tularemia								
	IDENT	Culture	None	900	M-F	10	DBL/BI	
	ISOLATION	Tissue	Ice pack	901	M-F	10	DBL/BI	
	PLATE	Serum	Ice pack	622	M-F	1	DBL/SERO	Francisella tularensis, Two ml minimum
Vesicular stomatitis								
	CELISA	Serum	Ice pack	615	M-F	1	DVL/BP	Two ml minimum. New Jersey and Indiana types, two user fee charges per serum
	CF	Serum	Ice pack	601	M-F	1	DVL/BP	Two ml minimum. New Jersey and Indiana types, two user fee charges per serum
	VI	Insect pool	Dry ice	832	M-F	7	DVL/BP	Must be kept frozen
	VI	Tissue, fluid	Ice pack	832	M-F	7	DVL/BP	RUMINANT AND PORCINE SAMPLES--SEND TO FADDL; EQUINE SAMPLES--SEND TO DVL. Notify State veterinarian/Federal veterinarian
	VN	Serum	Ice pack	607	M,W,F	3	DVL/BP	Two ml minimum. New Jersey and Indiana types, two user fee charges per serum
Vibriosis								
	IDENT	Various	Ice pack	900	M-F	10	DBL/BI	
	ISOLATION	Culture	None	901	M-F	7	DBL/BI	Vibrio spp.
Viral abortion								
	VI	Various	Ice pack	832	M-F	15	DVL/BP	Serum, or fetal fluid--two ml minimum, and tissue. Bovine and porcine
West Nile virus								
	IgM ELISA	Serum	Ice pack	615	M-Th	2	DVL/EO	Two ml. minimum
	PCR	Brain	Dry ice	897	Varies	3	DVL/EO	Multiplex procedure detects WNV, EEE, and WEE. May ship sample refrigerated overnight
West Nile virus								
	VI	Brain	Dry ice	832	Varies	14	DVL/EO	(See equine encephalomyelitis) PCR preferred for WNV detection

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	Procedure	Specimens	Shipping Preservative	User Fee Code	On Test Days	Min. Test Time (Days)	Testing Lab	Comments
West Nile virus								
	VN	Serum	Ice pack	607	F	5	DVL/EO	Two ml minimum
Yersinia spp.								
	IDENT	Culture	None	900	M-F	14	DBL/BI	Yersiniosis, plague
	ISOLATION	Various	Ice pack	901	M-F	14	DBL/BI	

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REAGENTS FROM THE NVSL-AMES

Diagnostic reagents are provided by the National Veterinary Services Laboratories (NVSL) when a commercial source of reagent is not available or when commercial sources are not fulfilling diagnostic needs. Reagents are provided on receipt of a VS form 4-9 (Request for Reagents or supplies). To expedite ordering, the reagent request should include complete reagent code numbers that are listed in this catalog . To ensure accuracy, orders should be sent by mail or facsimile (515) 663-7402, not by telephone. The VS form 4-9 can be obtained by visiting our web site at www.aphis.usda.gov/vs/nvsl, or one can be faxed to you by contacting (515) 663-7550 or 7571.

Certain reagents for APHIS programs are not subject to charge. Payment for services must be received in advance unless an account is already established with USDA. Payment may be in the form of check or money order, bank draft in U.S. dollars made payable to USDA, or Visa/MasterCard, or American Express. If paying with a credit card, include the credit card number and expiration date on the form 4-9. If an account is available, and the services are to be billed to this account, please write the account number on the form 4-9. If you do not have an account and would like to establish one, please contact APHIS Business Services in Minneapolis, Minnesota, at (877) 777-2128.

Reagent requests from outside the U.S. must be accompanied by an import permit or a letter from their governmental authorities stating that a permit is not required. Special requirements exist for requests from outside the U.S.; contact NVSL by email at nvslclient.help@usda.gov for further information on how to place an order.

Shipping fees apply for all nonprogram reagents shipped. The shipping fee for reagents shipped within the U.S. is $10.00. Shipping fee to Canada is $50.00; the fee for orders shipped out of the U.S. is $150.00. Additional shipping fees may apply if ordering a large quantity requiring more than one shipping container. Additional fees may apply for shipping reagents that are considered Dangerous Goods. Generally, reagents are shipped within ten working days after receipt of order. Some reagents need to be propagated, which will extend the shipment date beyond ten working days. The NVSL also has a rush shipping fee of $50.00, which applies to all orders which are requested in three days or less after receipt of order. Clients must call to confirm rush orders at (515) 663-7550 or 7571. **All standard shipping fees are subject to change with notice.**

Effective April 1, 2002, a new regulation went into effect that requires recipients of livestock and poultry pathogens to obtain a USDA veterinary permit for the transport of livestock and poultry pathogens. When requesting these types of items, you must include a copy of your valid permit with each order. If you do not have a permit, one can be obtained by contacting the National Center for Import and Export in Riverdale, Maryland, at (301) 734-3277.

For each new laboratory requesting reagents, the NVSL will assign a permanent laboratory identifying number preceded by the letter L. This number is in the upper right-hand corner of the packing list, just above the laboratory address. A packing list is sent with each shipment of reagents. Please include this number and the laboratory telephone number on the form 4-9 when placing subsequent reagent orders. If there are any questions regarding reagent ordering, please contact the User Fee Help Line at (515) 663-7550 or 7571.

Upon receipt of reagents in the laboratory, the contents of the shipment should be reconciled with the order and with the information on the packing list. If discrepancies occur, immediately call the User Fee Help Line at (515) 663-7550 or 7571 so that corrections can be made.

Return completed form 4-9 to:
National Veterinary Services Laboratories
User Fees
P.O. Box 844
Ames, IA 50010
Fax: (515) 663-7402

U. S. DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE
NATIONAL VETERINARY SERVICES LABORATORIES
P.O. BOX 844
AMES, IOWA 50010
TELEPHONE : (515) 663-7571
FAX: (515) 663-7402

Request for Reagents or Supplies

1. SHIP TO (Contact person, complete street address and zip code)
PLEASE PRINT LEGIBLY OR TYPE. NO P.O. BOX NUMBERS.

2. LAB ID NUMBER	3. TELEPHONE AND FAX NUMBERS	4. TO BE COMPLETED BY NVSL	NVSL ORDER NUMBER

5. METHOD OF PAYMENT ("X" APPLICABLE ITEM AND PROVIDE INFORMATION)

.☐ USER FEE ACCOUNT NUMBER	☐ VISA/MASTER CARD or AMERICAN EXPRESS ACCOUNT NUMBER _____ EXPIRATION DATE _____	☐ CHECK OR MONEY ORDER (MADE PAYABLE TO "USDA" IN US DOLLARS)

6. REAGENTS AND SUPPLIES REQUESTED

REAGENT CODE NUMBER	REAGENT OR ITEM NAME	QUANTITY	REMARKS

7. REQUESTED BY (PRINT NAME AND SIGN)	8. TELEPHONE NUMBER IF DIFFERENT THAN ABOVE

SEE REVERSE FOR INSTRUCTIONS

INSTRUCTIONS

Complete the form according to the following instructions. **Incomplete or incorrectly completed forms will delay shipment and may result in errors. Please print legibly or type all information.**

1. The name of a contact person and a complete street address and zip code are required. Do not use P.O. Box numbers.

2. If you have previously ordered reagents or supplies from the NVSL, you will have been assigned a Laboratory Identification Number that begins with an L and then has 3 or 4 numerical digits that follow (e.g., L1234); this is the number to enter in block number 2. If you are a new customer, the NVSL will assign a laboratory identification number when the order form is received.

3. A telephone number is required. No orders will be shipped unless a telephone number is provided. Provide a FAX number if one is available.

4. This section is to be completed by the NVSL.

5. Prepayment is required unless the requested items are to be billed to a user fee account number. If services are to be billed to a user fee account number, be sure to include the 11 digit account number in the applicable space provided. Prepayment may be in the form of check, money order, or credit card. Make check or money order payable to "USDA" in US dollars and attach to the order form and mail to the address on the front of the order form. Credit card (Visa, Master Card, or American Express) information should include the account number and expiration date.

6. The Reagents and Supplies Requested section must include the reagent code number, reagent or item name, and the quantity requested. Additional comments may be recorded in the remarks section.

7. The name of the person (print or type) authorizing the request **and** his/her signature must be included.

8. If the telephone number of the person authorizing the request is different from the telephone number of the contact person, please complete this section.

9. If you are requesting a live poultry or livestock pathogen, be sure to include a copy of your valid USDA veterinary permit with your order.

Orders should be faxed **or** mailed. If you fax an order, do not send it by mail as order will be duplicated. See the order form for the fax number or mailing address.

National Veterinary Services Laboratories
Virology Reagents

Reagent Name	Reagent Code	Amount/ Vial	Tests/ Vial	User Fee Code	Reagent Description
Avian adenovirus 1 agar gel immunodiffusion (AGID) antigen	303-ADV	1.0 ml	60	1452	Use to detect antibodies to avian adenovirus group 1 by the AGID test--must be ordered and used in matched sets (same lot numbers) with antiserum 306-ADV.
Avian adenovirus 1 agar gel immunodiffusion (AGID) antiserum	306-ADV	3.0 ml	60	1458	Use as a positive control serum with avian adenovirus group 1 AGID antigen--must be ordered and used in matched sets (same lot numbers) with antigen 303-ADV.
Avian adenovirus 127 antigen	012-ADV	2.0 ml	Varies	1453	Use in the hemagglutination-inhibition test to detect antibodies to adenovirus 127, propagated in duck embryo fibroblast cells (heat-inactivated)
Avian adenovirus 127 antiserum	301-ADV	2.0 ml	Varies	1457	Prepared in chickens
Avian encephalomyelitis (AE) antiserum	320-ADV	2.0 ml	Varies	1457	Prepared in chickens against Van Roekel strain. Antiserum can be used as a positive control in agar gel immunodiffusion test. AE AGID antigen is not supplied.
Avian encephalomyelitis (AE) fluorescent antibody (FA) conjugate	632-ADV	1.0 ml	Varies	1479	Use to detect AE viral antigen in tissues and brain smears by FA techniques. Van Roekel strain
Avian encephalomyelitis virus	020-ADV	0.6 ml	1	1511	Embryo-derived virus propagated in chick embryos.
Avian influenza H5 transcribed RNA	202-ADV	0.05 ml	Varies	999 *	Positive control for AIV H5 subtyping RRT-PCR. Transcribed RNA was prepared with PAMP1 plasmid containing the H5 gene of Avian/NY/31588-3/00.
Avian influenza H7 transcribed RNA	201-ADV	0.05 ml	Varies	999 *	Positive control for AIV H7 subtyping RRT-PCR. Transcribed RNA was prepared with PAMP1 plasmid containing the H7 gene of CK/NJ/30749-3/00.
Avian influenza immunodiffusion (AIID) antigen	300-EXP	2.0 ml	120	1461	Use to detect group-specific antibodies to type A influenza viruses for export purposes--must be ordered and used in matched sets (same lot numbers) with AIID antiserum 305-EXP
Avian influenza immunodiffusion (AIID) antigen	300	2.0 ml	120	1461 *	Use to detect group-specific antibodies to type A influenza viruses--must be ordered and used in matched sets (same lot numbers) with AIID antiserum 305
Avian influenza immunodiffusion (AIID) antiserum	305-EXP	6.0 ml	120	1465	Use as a positive control serum with AIID antigen for export purposes--must be ordered and used in matched sets (same lot numbers) with AIID antigen 300-EXP

*** No charge if used as part of an USDA control program**

Reagent Name	Reagent Code	Amount/ Vial	Tests/ Vial	User Fee Code	Reagent Description
Avian influenza immunodiffusion (AIID) antiserum	305	6.0 ml	120	1465 *	Use as a positive control serum with AIID antigen--must be ordered and used in matched sets (same lot numbers) with AIID antigen 300
Avian influenza immunodiffusion (AIID) negative reference serum	905-EXP	0.6 ml	12	1433	Use as a negative reference serum in the AIID test for export purposes
Avian influenza immunodiffusion (AIID) negative reference serum	905-ADV	0.6 ml	12	1433 *	Use as a negative reference serum in the AIID test for program/surveillance testing
Avian influenza immunodiffusion (AIID) strong positive reference serum	902-ADV	0.6 ml	12	1464 *	Use as a positive reference serum in the AIID test for program/surveillance testing
Avian influenza immunodiffusion (AIID) strong positive reference serum	902-EXP	0.6 ml	12	1464	Use as a positive reference serum in the AIID test for export purposes
Avian influenza immunodiffusion (AIID) weak positive reference serum	903-EXP	0.6 ml	12	1464	Use as a weak positive reference serum in the AIID test for export purposes
Avian influenza immunodiffusion (AIID) weak positive reference serum	903-ADV	0.6 ml	12	1464 *	Use as a weak positive reference serum in the AIID test for program/surveillance testing
Avian influenza matrix transcribed RNA	203-ADV	0.05 ml	Varies	999 *	Positive control for AIV matrix RRT-PCR. Transcribed RNA was prepared with PAMP1 plasmid containing the matrix gene of CK/PA/13522-1/98
Avian paramyxovirus type 2 antigen	071-ADV	2.0 ml	Varies	1453	Use in the hemagglutination and hemagglutination-inhibition test. Beta-propiolactone inactivated (P/Ck/CA/Yucaipa/56 strain)
Avian paramyxovirus type 2 antiserum	471-ADV	2.0 ml	Varies	1457	Antiserum prepared in chickens against P/Ck/CA/Yucaipa/56 strain
Avian paramyxovirus type 2 virus	171-ADV	0.6 ml	1	1511	Virus (P/Ck/CA/Yucaipa/56 strain) propagated in chicken embryos
Avian paramyxovirus type 3 antigen	073-ADV	2.0 ml	Varies	1453	Use in the hemagglutination and hemagglutination-inhibition test. Beta-propiolactone inactivated (P/Turkey/Wisconsin/68 strain)
Avian paramyxovirus type 3 antiserum	473-ADV	2.0 ml	Varies	1457	Antiserum prepared in chickens against P/Turkey/Wisconsin/68 strain
Avian paramyxovirus type 3 virus	173-ADV	0.6 ml	1	1511	Virus (P/Turkey/Wisconsin/68 strain) propagated in chick embryos.

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Reagent Name	Reagent Code	Amount/ Vial	Tests/ Vial	User Fee Code	Reagent Description
Avian paramyxovirus type 6 antigen	146-ADV	2.0 ml	Varies	1453	Use in the hemagglutination and hemagglutination-inhibition test. Beta-propiolactone inactivated (DK/H.K./199/75 strain)
Avian paramyxovirus type 6 antiserum	479-ADV	2.0 ml	Varies	1457	Antiserum prepared in chickens against DK/H.K./199/75 strain
Avian paramyxovirus type 7 antigen	147-ADV	2.0 ml	Varies	1453	Use in the hemagglutination and hemagglutination-inhibition test. Beta-propiolactone inactivated (Dove/TN/4/75 strain)
Avian paramyxovirus type 7 antiserum	481-ADV	2.0 ml	Varies	1457	Antiserum prepared in chickens against Dove/TN/4/75 strain
Avian reovirus	080-ADV	0.6 ml	1	1511	Cell culture virus (Fahey-Crawley strain) propagated in chicken embryo kidney cells
Avian reovirus antiserum	380-ADV	2.0 ml	Varies	1457	Antiserum prepared in chickens against Fahey-Crawley strain
Avian reovirus fluorescent antibody (FA) conjugate	680-ADV	1.0 ml	Varies	1479	Use to detect avian reovirus antigen in infected cell cultures or tissues by FA techniques (Fahey-Crawley strain)
Bluetongue check test	BT-CHK	N/A	N/A	966	Bluetongue proficiency check test
Bluetongue modifying factor	69	2.0 ml	Varies	1435	Use in the bluetongue or epizootic hemorrhagic disease modified complement fixation tests
Bluetongue virus	005-ODV	0.6 ml	Varies	1511	Type 2
Bluetongue virus	001-ODV	0.6 ml	Varies	1511	Type 10
Bluetongue virus	002-ODV	0.6 ml	Varies	1511	Type 11
Bluetongue virus	003-ODV	0.6 ml	Varies	1511	Type 13
Bluetongue virus	004-ODV	0.6 ml	Varies	1511	Type 17
Bluetongue virus (OIE) strong positive reference serum (ELISA, AGID)	904-ODV	2.0 ml	Varies	1469	Enzyme-linked immunosorbent assay control serum gnotobiotic (OIE). Agar gel immunodiffusion control serum (OIE)
Bluetongue virus (OIE) weak positive reference serum (ELISA, AGID)	905-ODV	2.0 ml	Varies	1469	Enzyme-linked immunosorbent assay control serum gnotobiotic (OIE). Agar gel immunodiffusion control serum (OIE)
Bluetongue virus antiserum	305-ODV	2.0 ml	Varies	1469	Type 2 specific--bovine origin
Bluetongue virus antiserum	304-ODV	2.0 ml	Varies	1469	Type 17 specific--bovine origin
Bluetongue virus antiserum	303-ODV	2.0 ml	Varies	1469	Type 13 specific--bovine origin
Bluetongue virus antiserum	302-ODV	2.0 ml	Varies	1469	Type 11 specific--bovine origin
Bluetongue virus antiserum	301-ODV	2.0 ml	Varies	1469	Type 10 specific--bovine origin

*** No charge if used as part of an USDA control program**

Reagent Name	Reagent Code	Amount/ Vial	Tests/ Vial	User Fee Code	Reagent Description
Bluetongue virus fluorescent antibody conjugate	601-ODV	1.0 ml	Varies	1479	Produced from goat-origin serum
Bluetongue virus strong positive reference serum	902-ODV	2.0 ml	Varies	1482	Agar gel immunodiffusion control serum--bovine origin
Bluetongue virus weak positive reference serum	903-ODV	2.0 ml	Varies	1482	Agar gel immunodiffusion control serum--bovine origin
Bovine adenovirus type 1	001-BDV	0.6 ml	1	1511	Strain #10--ATCC VR-313
Bovine adenovirus type 1 antiserum	301-BDV	2.0 ml	Varies	1469	Gnotobiotic calf serum
Bovine adenovirus type 5	005-BDV	0.6 ml	1	1511	Strain B4/65--ATCC VR-641
Bovine adenovirus type 5 antiserum	305-BDV	2.0 ml	Varies	1469	Gnotobiotic calf serum
Bovine coronavirus	020-BDV	0.6 ml	1	1511	Nebraska strain
Bovine coronavirus antiserum	320-BDV	2.0 ml	Varies	1469	Gnotobiotic calf serum
Bovine coronavirus fluorescent antibody conjugate	620-BDV	1.0 ml	Varies	1479	Bovine source
Bovine enterovirus -1	030-BDV	0.6 ml	Varies	1511	Strain LCR 4 ATCC VR-248
Bovine enterovirus -1 antiserum	330-BDV	2.0 ml	Varies	1469	Bovine source
Bovine enterovirus -2	031-BDV	0.6 ml	Varies	1511	Strain M2 ATCC VR-754
Bovine enterovirus -2 antiserum	331-BDV	2.0 ml	Varies	1469	Bovine source
Bovine enterovirus -3	032-BDV	0.6 ml	Varies	1511	Strain PS 89 ATCC VR-755
Bovine enterovirus -3 antiserum	332-BDV	2.0 ml	Varies	1469	Bovine source
Bovine enterovirus -4	033-BDV	0.6 ml	Varies	1511	Strain M4 ATCC VR-756
Bovine enterovirus -4 antiserum	333-BDV	2.0 ml	Varies	1469	Bovine source
Bovine enterovirus -5	034-BDV	0.6 ml	Varies	1511	Strain PS 83 ATCC VR-757
Bovine enterovirus -5 antiserum	334-BDV	2.0 ml	Varies	1469	Bovine source

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Reagent Name	Reagent Code	Amount/ Vial	Tests/ Vial	User Fee Code	Reagent Description
Bovine enterovirus -6	035-BDV	0.6 ml	Varies	1511	Strain PS 42 ATCC VR-758
Bovine enterovirus -6 antiserum	335-BDV	2.0 ml	Varies	1469	Bovine source
Bovine enterovirus -7	036-BDV	0.6 ml	Varies	1511	Strain PS 87 ATCC VR-774
Bovine enterovirus -7 antiserum	336-BDV	2.0 ml	Varies	1469	Bovine source
Bovine enterovirus antiserum 1-7	337-BDV	2.0 ml	Varies	1469	Bovine source, antiserum pool for virus identification
Bovine herpesvirus (BHV) 1 virus neutralization (VN) positive control serum	355-BDV	2.0 ml	12	1482	Positive control serum for BHV-1 (infectious bovine rhinotracheitis) VN test (diluted)
Bovine herpesvirus 1	050-BDV	0.6 ml	1	1511	Colorado strain (infectious bovine rhinotracheitis)
Bovine herpesvirus 1 antiserum	350-BDV	2.0 ml	Varies	1469	Bovine source
Bovine herpesvirus 1 fluorescent antibody conjugate	650-BDV	1.0 ml	Varies	1479	Bovine source
Bovine herpesvirus 2	051-BDV	0.6 ml	1	1511	New York strain--herpes mammallitis
Bovine herpesvirus 2 antiserum	351-BDV	2.0 ml	Varies	1469	Bovine source
Bovine herpesvirus 2 fluorescent antibody conjugate	651-BDV	1.0 ml	Varies	1479	Bovine source
Bovine herpesvirus 2 virus neutralization (VN) positive control serum	356-BDV	2.0 ml	12	1482	Positive control serum for BHV-2 (bovine herpes mammallitis) VN test (diluted)
Bovine herpesvirus 4	052-BDV	0.6 ml	1	1511	DN-599--ATCC VR-631
Bovine herpesvirus 4 antiserum	352-BDV	2.0 ml	Varies	1469	Bovine source
Bovine herpesvirus 4 fluorescent antibody conjugate	652-BDV	1.0 ml	Varies	1479	Bovine source
Bovine leukosis virus check test	BLV-CHK	N/A	N/A	966	Bovine leukosis proficiency check test

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Reagent Name	Reagent Code	Amount/ Vial	Tests/ Vial	User Fee Code	Reagent Description
Bovine leukosis virus strong positive serum	902-BDV	2.0 ml	Varies	1482	Bovine origin--agar gel immunodiffusion control
Bovine leukosis virus weak positive serum	903-BDV	2.0 ml	Varies	1482	Bovine origin--agar gel immunodiffusion control
Bovine papular stomatitis virus	080-BDV	0.6 ml	1	1511	Field isolate--Texas A&M, 1976
Bovine papular stomatitis virus antiserum	380-BDV	2.0 ml	Varies	1469	Bovine source
Bovine papular stomatitis virus fluorescent antibody conjugate	680-BDV	1.0 ml	Varies	1479	Bovine source
Bovine papular stomatitis virus neutralization (VN) positive control serum	385-BDV	2.0 ml	12	1482	Positive control serum for bovine papular stomatitis virus VN test (diluted)
Bovine parvovirus	090-BDV	0.6 ml	1	1511	Washington strain
Bovine parvovirus antiserum	390-BDV	2.0 ml	Varies	1469	Bovine source
Bovine parvovirus fluorescent antibody conjugate	690-BDV	1.0 ml	Varies	1479	Bovine source
Bovine parvovirus hemagglutination-inhibition (HI) positive control serum	395-BDV	2.0 ml	12	1482	Positive control serum for bovine parvovirus HI test (diluted)
Bovine respiratory syncytial virus	110-BDV	0.6 ml	1	1511	Strain A51908--ATCC VR-794
Bovine respiratory syncytial virus (BRSV) virus neutralization (VN) positive control serum	415-BDV	2.0 ml	12	1482	Positive control serum for the BRSV VN test (diluted)
Bovine respiratory syncytial virus antiserum	410-BDV	2.0 ml	Varies	1469	Bovine source
Bovine respiratory syncytial virus fluorescent antibody conjugate	710-BDV	1.0 ml	Varies	1479	Bovine source
Bovine rotavirus	130-BDV	0.6 ml	1	1511	Nebraska strain

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Reagent Name	Reagent Code	Amount/ Vial	Tests/ Vial	User Fee Code	Reagent Description
Bovine rotavirus antiserum	430-BDV	2.0 ml	Varies	1469	Bovine source
Bovine rotavirus fluorescent antibody conjugate	730-BDV	1.0 ml	Varies	1479	Bovine source
Bovine viral diarrhea (BVD) fluorescent antibody (FA) conjugate	243-FA	1.0 ml	Varies	1479	Bovine origin, use in the BVD FA test to identify cytopathic and noncytopathic strains of BVD virus in infected cell cultures
Bovine viral diarrhea (BVD) fluorescent antibody (FA) conjugate	244-FA	1.0 ml	Varies	1479	Porcine origin, use in the BVD FA test to identify cytopathic and noncytopathic strains of BVD virus in infected cell cultures
Bovine viral diarrhea (BVD) type 1 virus neutralization (VN) positive control serum	455-BDV	2.0 ml	12	1482	Positive control serum for BVD type 1 VN test (diluted)
Bovine viral diarrhea (BVD) type 2 virus neutralization (VN) positive control serum	546-BDV	2.0 ml	12	1482	Positive control serum for BVD type 2 VN test (diluted)
Bovine viral diarrhea virus (125 strain)	145-BDV	0.6 ml	1	1511	Strain 125--genotype 2--cytopathic
Bovine viral diarrhea virus (Draper strain)	141-BDV	0.6 ml	1	1511	Draper strain--noncytopathic
Bovine viral diarrhea virus (NADL Strain)	143-BDV	0.6 ml	1	1511	NADL strain--cytopathic
Bovine viral diarrhea virus (New York -1)	142-BDV	0.6 ml	1	1511	New York-1 strain--noncytopathic
Bovine viral diarrhea virus (Oregon strain)	144-BDV	0.6 ml	1	1511	Oregon C24v strain--cytopathic
Bovine viral diarrhea virus (Singer strain)	140-BDV	0.6 ml	1	1511	Singer strain--cytopathic
Bovine viral diarrhea virus antiserum	445-BDV	2.0 ml	Varies	1498	Porcine source--multivalent
Bovine viral diarrhea virus antiserum	440-BDV	2.0 ml	Varies	1469	Bovine source--multivalent
Bovine viral diarrhea virus antiserum	446-BDV	2.0 ml	Varies	1498	Porcine source--genotype 2-specific

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Reagent Name	Reagent Code	Amount/ Vial	Tests/ Vial	User Fee Code	Reagent Description
Chlamydia complement fixation (CF) antigen (cell culture)	005-RDV	1.0 ml	Varies	1512	Positive chlamydia CF antigen - cell culture derived (inactivated)
Chlamydia psittaci (cell culture) agent	002-RDV	0.6 ml	1	1511	Use as a positive control for the isolation of Chlamydia psittaci in cell culture.
Chlamydia psittaci antiserum	301-RDV	2.0 ml	Varies	1469	
Chlamydia psittaci fluorescent antibody (FA) conjugate	601-RDV	1.0 ml	Varies	1479	Use to detect Chlamydia psittaci in infected cells by FA
Chlamydia spp. modifying factor for complement fixation test	302-RDV	1.0 ml	Varies	1434	Normal chicken serum
Chlamydia spp. normal antigen for complement fixation test	004-RDV	1.0 ml	Varies	1512	Normal cell culture antigen
Contagious ecthyma virus	030-ODV	0.6 ml	Varies	1511	Vaccine strain
Contagious ecthyma virus antiserum	330-ODV	2.0 ml	Varies	1469	Sheep origin--complement fixation titer 1:80
Contagious ecthyma virus fluorescent antibody conjugate	630-ODV	1.0 ml	150	1479	Prepared from ovine-origin antiserum
Duck viral enteritis (DVE) fluorescent antibody (FA) conjugate	631-ADV	1.0 ml	Varies	1479	Use to detect DVE viral antigen in infected cells or tissues by FA techniques (Holland B vaccine strain)
Duck viral enteritis antiserum	331-ADV	2.0 ml	Varies	1457	Antiserum prepared in Muscovy ducks against Holland B vaccine strain
Duck viral enteritis virus (vaccine strain)	031-ADV	0.6 ml	1	1511	Cell culture virus propagated in duck embryo fibroblast cells
Encephalomyocarditis (EMC) virus neutralization (VN) positive control serum	315-MDV	2.0 ml	12	1482	Positive control serum for EMC VN test (diluted)
Encephalomyocarditis virus (EMC)	001-MDV	0.6 ml	1	1511	Florida strain, challenge virus for the EMC virus neutralization test
Encephalomyocarditis virus (Hawaii field isolate)	003-MDV	0.6 ml	1	1511	Field isolate from Hawaii--1988
Encephalomyocarditis virus (Puerto Rico isolate)	002-MDV	0.6 ml	1	1511	Field isolate from Puerto Rico--1990

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Reagent Name	Reagent Code	Amount/ Vial	Tests/ Vial	User Fee Code	Reagent Description
Encephalomyocarditis virus antiserum	301-MDV	2.0 ml	Varies	1498	Porcine source
Encephalomyocarditis virus fluorescent antibody conjugate	601-MDV	1.0 ml	Varies	1479	Porcine source
Epizootic hemorrhagic disease virus	040-ODV	0.6 ml	Varies	1511	Type 1--New Jersey
Epizootic hemorrhagic disease virus	041-ODV	0.6 ml	Varies	1511	Type 2--Alberta
Epizootic hemorrhagic disease virus antiserum	340-ODV	2.0 ml	Varies	1469	Type 1 specific--bovine origin
Epizootic hemorrhagic disease virus antiserum	341-ODV	2.0 ml	Varies	1469	Type 2 specific--bovine origin
Epizootic hemorrhagic disease virus fluorescent antibody conjugate	640-ODV	1.0 ml	Varies	1479	Produced from goat-origin antiserum
Equine adenovirus	001-EDV	0.6 ml	1	1511	For production of stock virus
Equine adenovirus antiserum	301-EDV	2.0 ml	Varies	1486	Positive control for virus neutralization test
Equine adenovirus fluorescent antibody conjugate	601-EDV	1.0 ml	Varies	1479	For use on cell cultures or tissue sections
Equine herpesvirus (EH) negative control serum	343-EDV	2.0 ml	Varies	1435	Negative control for the EH virus neutralization test. Must specify for type 1 or 3
Equine herpesvirus 1 antiserum	340-EDV	2.0 ml	Varies	1486	Positive control for virus neutralization test
Equine herpesvirus 1 fluorescent antibody conjugate	640-EDV	1.0 ml	Varies	1479	For use on cell cultures or tissue sections
Equine herpesvirus 1 virus, equine viral rhinopneumonitis	040-EDV	0.6 ml	1	1511	For production of stock virus
Equine herpesvirus 2 antiserum	341-EDV	2.0 ml	Varies	1486	Positive control for virus neutralization test
Equine herpesvirus 2 virus, equine cytomegalovirus	041-EDV	0.6 ml	1	1511	For production of stock virus
Equine herpesvirus 3 antiserum	342-EDV	2.0 ml	Varies	1486	Positive control for virus neutralization test
Equine herpesvirus 3 virus, equine coital exanthema	042-EDV	0.6 ml	1	1511	For production of stock virus
Equine infectious anemia check test	EIA-CHK	N/A	N/A	966	Proficiency test for equine infectious anemia certification
Equine infectious anemia negative serum	905-EDV	2.0 ml	Varies	1435	Control for the agar gel immunodiffusion test

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Reagent Name	Reagent Code	Amount/ Vial	Tests/ Vial	User Fee Code	Reagent Description
Equine infectious anemia strong positive serum	902-EDV	2.0 ml	Varies	1486	Control for the agar gel immunodiffusion test
Equine infectious anemia weak positive serum	903-EDV	2.0 ml	Varies	1486	Control for the agar gel immunodiffusion test
Equine influenza antigen type 1 A/Equine/Prague/56	121-IDV	2.0 ml	Varies	898	Antigen for type A1 equine influenza. Produced in specific pathogen free eggs.
Equine influenza antigen type 2 Alaska strain A/EQ/AK/29759/91	120-IDV	2.0 ml	Varies	898	Antigen for type A2 equine influenza. Produced in specific pathogen free eggs.
Equine influenza antigen type 2 Miami strain A/EQ/Miami/1/63	160-IDV	2.0ml	Varies	898	Inactivated virus for the hemagglutination-inhibition test. Antigen for type A2 equine influenza. Produced in specific pathogen free eggs.
Equine influenza virus A-1 Prague	021-IDV	0.6 ml	Varies	1511	A-1 Prague/56 seed virus
Equine influenza virus A-2 Alaska	020-IDV	0.6 ml	Varies	1511	A-2 Alaska/91 seed virus
Equine influenza virus A-2 Kentucky	040-IDV	0.6 ml	Varies	1511	A-2 Kentucky/81 seed virus
Equine influenza virus A-2 Miami	060-IDV	0.6 ml	Varies	1511	A-2 Miami/63 seed virus
Equine influenza virus antiserum A-1 Prague	321-IDV	2.0 ml	Varies	1457	A-1 Prague, positive control for hemagglutination-inhibition test
Equine influenza virus antiserum A-2 Alaska	320-IDV	2.0 ml	Varies	1457	A-2 Alaska, positive control for hemagglutination-inhibition test
Equine influenza virus antiserum A-2 Kentucky	340-IDV	2.0 ml	Varies	1457	A-2 Kentucky, positive control for hemagglutination-inhibition test
Equine influenza virus antiserum A-2 Miami	360-IDV	2.0 ml	Varies	1457	A-2 Miami, positive control for hemagglutination-inhibition test
Equine rhinovirus type I antiserum	360-EDV	2.0 ml	Varies	1506	Positive control for virus neutralization test
Equine rhinovirus type I virus	060-EDV	0.6 ml	1	1511	For production of stock virus
Equine rhinovirus type II antiserum	361-EDV	2.0 ml	Varies	1506	Positive control for virus neutralization test
Equine rhinovirus type II virus	061-EDV	0.6 ml	1	1511	For production of viral stock
Equine viral arteritis (EVA) negative control serum	372-EDV	2.0 ml	Varies	1435	Negative control for the EVA virus neutralization test
Equine viral arteritis antiserum	370-EDV	2.0 ml	Varies	1486	Positive control for virus neutralization and indirect fluorescent antibody tests

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Reagent Name	Reagent Code	Amount/ Vial	Tests/ Vial	User Fee Code	Reagent Description
Equine viral arteritis check test	EVA-CHK	N/A	N/A	966	Proficiency test for equine viral arteritis
Equine viral arteritis virus	070-EDV	0.6 ml	1	1511	CVL Bucyrus strain
Fowl pox antiserum	461-ADV	2.0 ml	Varies	1457	Antiserum prepared in chickens against challenge virus FP 73-1
Fowl pox virus	061-ADV	0.6 ml	Varies	1511	Virus produced in chicken embryo kidney cells
Hemagglutinating encephalomyelitis virus (HEV)	001-PDV	0.6 ml	1	1511	Mengling strain, challenge virus for the HEV hemagglutination-inhibition test
Hemagglutinating encephalomyelitis virus (HEV) positive control serum	315-PDV	2.0 ml	12	1482	Positive control serum for HEV hemagglutination-inhibition test (diluted)
Hemagglutinating encephalomyelitis virus antiserum	301-PDV	2.0 ml	Varies	1498	Porcine source
Hemagglutinating encephalomyelitis virus fluorescent antibody conjugate	601-PDV	1.0 ml	Varies	1479	Porcine source
Infectious bronchitis virus	112-ADV	0.6 ml	1	1511	Virus (Beaudette strain) propagated in chicken embryos
Infectious bronchitis virus (IBV) antigen (Ark.)	186-ADV	1.0 ml	Varies	1452	Use in the IBV hemagglutination-inhibition test to detect antibodies to IBV Ark.
Infectious bronchitis virus (IBV) antigen (Conn.)	187-ADV	1.0 ml	Varies	1452	Use in the IBV hemagglutination-inhibition test to detect antibodies to IBV Conn.
Infectious bronchitis virus (IBV) antigen (JMK)	188-ADV	1.0 ml	Varies	1452	Use in the IBV hemagglutination-inhibition test to detect antibodies to IBV JMK
Infectious bronchitis virus (IBV) antigen (Mass.)	189-ADV	1.0 ml	Varies	1452	Use in the IBV hemagglutination-inhibition test to detect antibodies to IBV Mass.
Infectious bronchitis virus (IBV) antiserum	412-ADV	2.0 ml	Varies	1457	Produced in chickens against Beaudette strain of IBV
Infectious bronchitis virus (IBV) antiserum (Ark.)	486-ADV	2.0 ml	Varies	1457	Use in the IBV hemagglutination-inhibition test as a positive control serum
Infectious bronchitis virus (IBV) antiserum (Conn.)	487-ADV	2.0 ml	Varies	1457	Use in the IBV hemagglutination-inhibition test as a positive control serum
Infectious bronchitis virus (IBV) antiserum (JMK)	488-ADV	2.0 ml	Varies	1457	Use in the IBV hemagglutination-inhibition test as a positive control serum
Infectious bronchitis virus (IBV) antiserum (Mass.)	489-ADV	2.0 ml	Varies	1457	Use in the IBV hemagglutination-inhibition test as a positive control serum

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Reagent Name	Reagent Code	Amount/ Vial	Tests/ Vial	User Fee Code	Reagent Description
Infectious bursal disease (IBD) agar gel immunodiffusion (AGID) antigen	123-ADV	1.0 ml	60	1452	Use to detect antibodies to IBD virus by the AGID test--must be ordered and used in matched sets (same lot numbers) with antiserum 421-ADV.
Infectious bursal disease (IBD) agar gel immunodiffusion (AGID) antiserum	421-ADV	3.0 ml	60	1458	Use as a positive control serum with IBD AGID antigen--must be ordered and used in matched sets (same lot numbers) with antigen 123-ADV.
Infectious bursal disease (IBD) antiserum	420-ADV	2.0 ml	Varies	1457	Use as a positive control serum in the IBD indirect fluorescent antibody test
Infectious bursal disease virus (cell culture)	120-ADV	0.6 ml	1	1511	Cell culture virus (Edgar strain) propagated in chicken embryo cells
Infectious bursal disease virus (embryo)	124-ADV	0.6 ml	1	1511	Embryo-adapted chicken embryo-propagated virus, NVSL challenge virus strain
Infectious laryngotracheitis (ILT) fluorescent antibody (FA) conjugate	633-ADV	1.0 ml	Varies	1479	Use to detect ILT viral antigen in infected cell cultures or tissues by FA techniques. NVSL challenge virus strain LT 83-2
Infectious laryngotracheitis virus	033-ADV	0.6 ml	1	1511	Cell culture virus (strain LT 83-2) propagated in chick embryo kidney cells
Infectious laryngotracheitis virus antiserum	333-ADV	2.0 ml	Varies	1457	Antiserum prepared in chickens against LT 83-2 strain
Muscovy duck parvovirus antiserum	436-ADV	2.0 ml	Varies	1457	
Newcastle disease antigen	136-ADV	2.0 ml	Varies	1453	For use in the hemagglutination and hemagglutination-inhibition tests. Beta-propiolactone inactivated (LaSota strain)
Newcastle disease antiserum	433-ADV	2.0 ml	Varies	1457	Antiserum prepared in chickens against New Jersey-Roakin strain
Newcastle disease transcribed RNA	200-ADV	0.05 ml	Varies	999 *	Positive control for NDV RRT-PCR. Transcribed RNA was prepared with PAMP1 plasmid containing the matrix and fusion gene of PMV/CA/Chicken/211472/02
Newcastle disease virus	132-ADV	0.6 ml	1	1511	Virus (LaSota strain) propagated in chick embryos
Normal mouse brain complement fixation antigen	074-VDV	1.0 ml	6	1452	Normal antigen for vesicular stomatitis complement fixation test
Normal specific pathogen free chicken serum	907-ADV	5.0 ml	Varies	1436	Used as a negative control serum for avian serology
Normal turkey serum	906-ADV	0.6 ml	Varies	1433	Used as a negative control serum for avian serology

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Reagent Name	Reagent Code	Amount/ Vial	Tests/ Vial	User Fee Code	Reagent Description
Ovine progressive pneumonia/caprine arthritis encephalitis strong positive reference serum	410-CDV	2.0 ml	Varies	1482	Ovine origin--agar gel immunodiffusion control
Parainfluenza-3 (PI-3) virus neutralization (VN) positive control serum	475-BDV	2.0 ml	12	1482	Positive control serum for the PI-3 VN test (diluted)
Parainfluenza-3 virus	170-BDV	0.6 ml	1	1511	SF-4 strain
Parainfluenza-3 virus antiserum	470-BDV	2.0 ml	Varies	1469	Bovine source
Parainfluenza-3 virus fluorescent antibody conjugate	770-BDV	1.0 ml	Varies	1479	Bovine source
Pigeon paramyxovirus type 1 antigen	038-ADV	2.0 ml	Varies	1453	Use in the hemagglutination and the hemagglutination-inhibition tests. Beta-propiolactone inactivated
Porcine adenovirus	030-PDV	0.6 ml	1	1511	
Porcine adenovirus antiserum	330-PDV	2.0 ml	Varies	1498	Porcine source
Porcine adenovirus fluorescent antibody conjugate	630-PDV	1.0 ml	Varies	1479	Porcine source
Porcine enterovirus -1	051-PDV	0.6 ml	Varies	1511	Strain PS 34 ATCC VR-670
Porcine enterovirus -1 antiserum	351-PDV	2.0 ml	Varies	1498	Porcine source
Porcine enterovirus -2	052-PDV	0.6 ml	Varies	1511	Strain 03B
Porcine enterovirus -2 antiserum	352-PDV	2.0 ml	Varies	1498	Porcine source
Porcine enterovirus -3	053-PDV	0.6 ml	Varies	1511	Strain PS 14
Porcine enterovirus -3 antiserum	353-PDV	2.0 ml	Varies	1498	Porcine source
Porcine enterovirus -4	054-PDV	0.6 ml	Varies	1511	Strain PS 36
Porcine enterovirus -4 antiserum	354-PDV	2.0 ml	Varies	1498	Porcine source
Porcine enterovirus -5	055-PDV	0.6 ml	Varies	1511	Strain F-12
Porcine enterovirus -5 antiserum	355-PDV	2.0 ml	Varies	1498	Porcine source
Porcine enterovirus -6	056-PDV	0.6 ml	Varies	1511	Strain PS 37
Porcine enterovirus -6 antiserum	356-PDV	2.0 ml	Varies	1498	Porcine source
Porcine enterovirus -7	057-PDV	0.6 ml	Varies	1511	Strain WR 2
Porcine enterovirus -7 antiserum	357-PDV	2.0 ml	Varies	1498	Porcine source

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Reagent Name	Reagent Code	Amount/ Vial	Tests/ Vial	User Fee Code	Reagent Description
Porcine enterovirus -8	058-PDV	0.6 ml	Varies	1511	Strain PS 27
Porcine enterovirus -8 antiserum	358-PDV	2.0 ml	Varies	1498	Porcine source
Porcine enterovirus -8a	059-PDV	0.6 ml	Varies	1511	Strain PS 32
Porcine enterovirus -8a antiserum	359-PDV	2.0 ml	Varies	1498	Porcine source
Porcine enterovirus -8b	060-PDV	0.6 ml	Varies	1511	ECPO 1
Porcine enterovirus -8b antiserum	360-PDV	2.0 ml	Varies	1498	Porcine source
Porcine enterovirus -8c	061-PDV	0.6 ml	Varies	1511	Strain PS 30
Porcine enterovirus -8c antiserum	361-PDV	2.0 ml	Varies	1498	Porcine source
Porcine enterovirus antiserum 1-7	363-PDV	2.0 ml	Varies	1498	Antiserum pool for virus identification
Porcine enterovirus antiserum 1-8c	362-PDV	2.0 ml	Varies	1498	Antiserum pool for virus identification
Porcine enterovirus antiserum 8-8c	364-PDV	2.0 ml	Varies	1498	Antiserum pool for virus identification
Porcine parvovirus (PPV)	080-PDV	0.6 ml	Varies	1511	NADL-1 (Mengeling) strain, challenge virus for the PPV hemagglutination-inhibition test
Porcine parvovirus (PPV) hemagglutination-inhibition positive control serum	385-PDV	2.0 ml	12	1482	Positive control serum for PPV hemagglutination-inhibition test (diluted)
Porcine parvovirus antiserum	380-PDV	2.0 ml	Varies	1498	Porcine source
Porcine parvovirus fluorescent antibody conjugate	680-PDV	1.0 ml	Varies	1479	For cell culture staining
Porcine reovirus	100-PDV	0.6 ml	1	1511	Type 3
Porcine reovirus antiserum	400-PDV	2.0 ml	Varies	1498	Porcine source
Porcine reovirus fluorescent antibody conjugate	700-PDV	1.0 ml	Varies	1479	Porcine source
Porcine reproductive and respiratory syndrome (PRRS) monoclonal antibody	635-PDV	1.0 ml	Varies	1492	Mouse anti-PRRS antibodies for antigen detection
Porcine reproductive and respiratory syndrome antiserum (European N strain)	460-PDV	2.0 ml	Varies	1498	European N strain, undiluted antiserum
Porcine reproductive and respiratory syndrome antiserum (NVSL strain)	430-PDV	2.0 ml	Varies	1498	NVSL (North American) strain, undiluted antiserum

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Reagent Name	Reagent Code	Amount/ Vial	Tests/ Vial	User Fee Code	Reagent Description
Porcine reproductive and respiratory syndrome check test	PRR-ELI	N/A	N/A	966	Enzyme-linked immunosorbent assay
Porcine reproductive and respiratory syndrome check test	PRR-IFA	N/A	N/A	966	Indirect fluorescent antibody test
Porcine reproductive and respiratory syndrome indirect immunofluorescent assay (IFA) negative control serum	535-PDV	2.0 ml	12	1435	Negative control serum for the IFA test, both NVSL and European strains
Porcine reproductive and respiratory syndrome indirect immunofluorescent assay (IFA) positive control serum (European N strain)	345-PDV	2.0 ml	12	1482	European N strain, positive control serum for the IFA test (diluted)
Porcine reproductive and respiratory syndrome indirect immunofluorescent assay (IFA) positive control serum (NVSL strain)	335-PDV	2.0 ml	12	1482	NVSL (North American) strain, positive control serum for the IFA test (diluted)
Porcine reproductive and respiratory syndrome infected MARC-145 cells	130-MDV	set/2 slides	N/A	898	NVSL (North American) strain, 8-chambered slides for indirect immunofluorescent assay testing (acetone-fixed)
Porcine reproductive and respiratory syndrome infected MARC-145 cells	150-MDV	set/2 slides	N/A	898	European N strain, 8-chambered slides for indirect immunofluorescent assay testing (acetone-fixed)
Porcine reproductive and respiratory syndrome virus (European N strain)	140-PDV	0.6 ml	1	1511	European N strain, for preparation of indirect immunofluorescent assay slides. Requires special permission to receive. Contact DVL/BP Section Head.
Porcine reproductive and respiratory syndrome virus (NVSL strain)	130-PDV	0.6 ml	1	1511	NVSL (North American) strain, for preparation of indirect immunofluorescent assay slides
Porcine rotavirus	110-PDV	0.6 ml	1	1511	Bohl's strain
Porcine rotavirus antiserum	410-PDV	2.0 ml	Varies	1498	Porcine source
Porcine rotavirus fluorescent antibody conjugate	710-PDV	1.0 ml	Varies	1479	Porcine source
Porcine rotavirus positive control tissue	111-PDV	1-2 g	Varies	1502	Intestine--fluorescent antibody control
Potomac horse fever antiserum	380-EDV	2.0 ml	Varies	1486	Positive control for indirect fluorescent antibody test
Potomac horse fever negative control serum	381-EDV	2.0 ml	Varies	1435	Negative control for the indirect fluorescent antibody test
Pseudocowpox virus	100-BDV	0.6 ml	1	1511	Field isolate--NVSL accession number 73-9543

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Reagent Name	Reagent Code	Amount/ Vial	Tests/ Vial	User Fee Code	Reagent Description
Pseudocowpox virus antiserum	400-BDV	2.0 ml	Varies	1469	Bovine and porcine sources available
Pseudocowpox virus fluorescent antibody conjugate	700-BDV	1.0 ml	Varies	1479	Bovine source
Pseudorabies check test (Aujeszky's)	PRV-GP1	N/A	N/A	966 *	Enzyme-linked immunosorbent assy (gI) U.S.: must be an APHIS approved laboratory or in the process of becoming approved. Contact DVL/BP Section Head.
Pseudorabies check test (Aujeszky's)	PRV-ELI	N/A	N/A	966 *	Enzyme-linked immunosorbent assay. U.S.: Must be an APHIS-approved laboratory or in the process of becoming approved. Contact DVL/BP Section Head.
Pseudorabies check test (Aujeszky's)	PRV-PCF	N/A	N/A	966 *	Particle concentration fluorescence immunoassay. U.S.: Must be an APHIS-approved laboratory or in the process of becoming approved. Contact DVL/BP Section Head.
Pseudorabies check test (Aujeszky's)	PRV-VNT	N/A	N/A	966 *	Virus neutralization check test. U.S.: must be an APHIS approved laboratory or in the process of becoming approved. Contact DVL/BP Section Head.
Pseudorabies check test (Aujeszky's)	PRV-LAT	N/A	N/A	966 *	Latex agglutination test. U.S.: must be an APHIS approved laboratory or in the process of becoming approved. Contact DVL/BP Section Head.
Pseudorabies virus (Aujeszky's)	070-PDV	0.6 ml	1	1511 *	Shope strain, challenge virus for the pseudorabies virus neutralization test. U.S.: Must be an APHIS-approved laboratory or in the process of becoming approved. Contact DVL/BP Section Head.
Pseudorabies virus antiserum (Aujeszky's)	370-PDV	2.0 ml	Varies	1498 *	Porcine source
Pseudorabies virus fluorescent antibody conjugate (Aujeszky's)	670-PDV	1.0 ml	Varies	1479 *	Porcine source
Pseudorabies virus neutralization (VN) positive control serum	375-PDV	2.0 ml	12	1482 *	Positive control serum for pseudorabies VN test (diluted). U.S.: must be an APHIS-approved laboratory. Contact DVL/BP Section Head.
Pseudorabies virus positive control tissue (Aujeszky's)	075-PDV	1-2 g	Varies	1502 *	Tonsil--fluorescent antibody control.
Psittacine herpesvirus	037-ADV	0.6 ml	1	1511	Cell culture virus (NVSL strain 77-4441) propagated in chicken embryo kidney cells
Psittacine herpesvirus (PHV) fluorescent antibody (FA) conjugate	637-ADV	1.0 ml	Varies	1479	Use to detect PHV viral antigen in infected cell cultures or tissues by FA techniques. NVSL 77-4441 strain

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Reagent Name	Reagent Code	Amount/ Vial	Tests/ Vial	User Fee Code	Reagent Description
Psittacine herpesvirus antiserum	337-ADV	2.0 ml	Varies	1457	Antiserum prepared in chickens against NVSL strain 77-4441
Quail bronchitis (avian adenovirus group 1) antiserum	302-ADV	2.0 ml	Varies	1457	Antiserum prepared in chickens
Quail bronchitis virus (avian adenovirus group 1)	002-ADV	0.6 ml	1	1511	Cell culture virus propagated in chick embryo kidney cells
Swine influenza virus (SIV)	003-IDV	0.6 ml	1	1511	A/SW/Iowa/73--H1N1, challenge virus for the swine influenza hemagglutination-inhibition test
Swine influenza virus (SIV) antigen H1N1	026-IDV	2.0 ml	Varies	1453	A/SW/Iowa/73 -- H1N1 strain, use in the SIV hemagglutination-inhibition test
Swine influenza virus (SIV) antigen H3N2 (NC)	025-IDV	2.0 ml	varies	1453	Beta-propiolactone inactivated, A/SW/NC/35922/98. Use in the SIV hemagglutination-inhibition test
Swine influenza virus (SIV) antigen H3N2 (Tex)	023-IDV	2.0 ml	varies	1453	A/SW/TX/1/98 strain, use in the SIV hemagglutination-inhibition test
Swine influenza virus (SIV) antigen variant H1N1 (NC)	027-IDV	2.0 ml	Varies	1453	A/SW/NC/18893/01 strain. Use in the SIV H1N1 hemagglutination-inhibition test
Swine influenza virus (SIV) antiserum H1N1	301-IDV	2.0 ml	Varies	1498	A/SW/Iowa/73, porcine source
Swine influenza virus (SIV) antiserum H3N2 (NC)	325-IDV	2.0 ml	varies	1498	A/SW/NC/35922/98 strain, porcine origin. Use as a positive control serum in the SIV hemagglutination-inhibition test.
Swine influenza virus (SIV) antiserum H3N2 (NC)	326-IDV	2.0 ml	varies	1457	A/SW/NC/35922/98 strain, specific pathogen free, chicken origin
Swine influenza virus (SIV) antiserum H3N2 (Tex)	323-IDV	2.0 ml	varies	1457	A/SW/TX/1/98 strain, specific pathogen free, chicken origin
Swine influenza virus (SIV) antiserum H3N2 (TX)	324-IDV	2.0 ml	varies	1498	A/SW/TX/1/98 strain, porcine origin, use as a positive control serum in the SIV hemagglutination-inhibition test
Swine influenza virus (SIV) fluorescent antibody conjugate H1N1	601-IDV	1.0 ml	Varies	1479	Porcine source
Swine influenza virus (SIV) fluorescent antibody conjugate H3N2	634-IDV	1.0 ml	Varies	1479	Porcine source
Swine influenza virus (SIV) H3N2 (TX)	123-IDV	0.6 ml	1	1511	A/SW/TX/1/98 strain
Swine influenza virus (SIV) hemagglutination-inhibition positive control serum (H1N1)	375-IDV	2.0 ml	12	1482	Positive control serum (H1N1) for SIV hemagglutination-inhibition test (diluted)

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Reagent Name	Reagent Code	Amount/ Vial	Tests/ Vial	User Fee Code	Reagent Description
Swine influenza virus (SIV) positive control tissue H1N1	222-IDV	1-2 g	Varies	1502	Lung--fluorescent antibody control
Swine pox virus	002-PDV	0.6 ml	Varies	1511	Challenge virus - lab strain
Swine pox virus antiserum	302-PDV	2.0 ml	Varies	1498	Porcine source
Swine pox virus fluorescent antibody conjugate	602-PDV	1.0 ml	Varies	1479	Porcine source
Transcribed AIV H5 RNA	202-ADV	0.05 ml	Varies	999 *	Positive control for AIV H5 subtyping RRT-PCR. Transcribed RNA was prepared with PAMP1 plasmid containing the H5 gene of Avian/NY/31588-3/00
Transcribed AIV H7 RNA	201-ADV	0.05 ml	Varies	999 *	Positive control for AIV H7 subtyping RRT-PCR. Transcribed RNA was prepared with PAMP1 plasmid containing the H7 gene of CK/NJ/30749-3/00.
Transcribed AIV matrix RNA	203-ADV	0.05 ml	Varies	999 *	Positive control for AIV matrix RRT-PCR. Transcribed RNA was prepared with PAMP1 plasmid containing the matrix gene of CK/PA/13552-1/98
Transcribed NDV RNA	200-ADV	0.05 ml	Varies	999 *	Positive control for NDV RRT-PCR. Transcribed RNA was prepared with PAMP1 plasmid containing the matrix and fusion gene of PMV/CA/Chicken/211472/02.
Transmissible gastroenteritis (TGE) virus	020-PDV	0.6 ml	1	1511	Purdue strain, challenge virus for the TGE virus neutralization test
Transmissible gastroenteritis (TGE) virus neutralization (VN) positive control serum	325-PDV	2.0 ml	12	1482	Positive control serum for TGE VN test (diluted)
Transmissible gastroenteritis virus antiserum	320-PDV	2.0 ml	Varies	1498	Porcine source
Transmissible gastroenteritis virus fluorescent antibody conjugate	620-PDV	1.0 ml	Varies	1479	Porcine source
Transmissible gastroenteritis virus positive control tissue	021-PDV	1-2 g	Varies	1502	Intestine--fluorescent antibody control
Vesicular stomatitis (VS) complement fixation (CF) antigen Indiana	069-VDV	1.0 ml	6	1452	Challenge virus for the VS Indiana CF test
Vesicular stomatitis (VS) complement fixation (CF) antigen New Jersey	075-VDV	1.0 ml	6	1452	Challenge virus for the VS New Jersey CF test

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Reagent Name	Reagent Code	Amount/ Vial	Tests/ Vial	User Fee Code	Reagent Description
Vesicular stomatitis (VS) complement fixation (CF) Indiana positive control serum (bovine)	374-VDV	2.0 ml	12	1482	Positive control serum for VS Indiana CF test (diluted)
Vesicular stomatitis (VS) complement fixation (CF) Indiana positive control serum (equine)	369-VDV	2.0 ml	12	1482	Positive control serum for VS Indiana CF test (diluted)
Vesicular stomatitis (VS) complement fixation (CF) negative control serum	490-BDV	2.0 ml	12	1435	Negative control serum for VS CF tests, equine origin
Vesicular stomatitis (VS) complement fixation (CF) negative control serum	491-BDV	2.0 ml	12	1435	Negative control serum for VS CF tests, bovine origin
Vesicular stomatitis (VS) complement fixation (CF) New Jersey positive control serum (bovine)	368-VDV	2.0 ml	12	1482	Positive control serum for VS New Jersey CF test (diluted)
Vesicular stomatitis (VS) complement fixation (CF) New Jersey positive control serum (equine)	375-VDV	2.0 ml	12	1482	Positive control serum for VS New Jersey CF test (diluted)
Vesicular stomatitis (VS) virus neutralization (VN) check test	VS-VN	NA	NA	966	Virus neutralization check test
Vesicular stomatitis (VS) virus neutralization (VN) Indiana positive control serum	470-VDV	2.0 ml	12	1482	Positive control serum for VS Indiana virus neutralization test (diluted)
Vesicular stomatitis (VS) virus neutralization (VN) negative control serum	480-BDV	2.0 ml	12	1435	Negative control serum for VS VN tests (diluted), bovine origin
Vesicular stomatitis (VS) virus neutralization (VN) New Jersey positive control serum	473-VDV	2.0 ml	12	1482	Positive control serum for VS New Jersey VN test (diluted)
Vesicular stomatitis (VS) virus, Indiana (IN)	070-VDV	0.6 ml	1	1511	Chimayo strain, challenge virus for the VS(IN) virus neutralization test
Vesicular stomatitis (VS) virus, New Jersey (NJ)	073-VDV	0.6 ml	1	1511	Atlanta strain, challenge virus for the VS(NJ) virus neutralization test
West Nile antiserum for virus neutralization (VN) control (horse)	336-EDV	2.0 ml	Varies	999	Use as a positive control serum for performing VN or plaque reduction neutralization test for West Nile. Contact laboratory for pricing.

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Reagent Name	Reagent Code	Amount/ Vial	Tests/ Vial	User Fee Code	Reagent Description
West Nile antiserum IgM capture ELISA (horse)	335-EDV	1.0 ml	Varies	999	Use as a positive control serum for IgM capture ELISA test system for equine. Contact laboratory for pricing.
West Nile equine IgM low positive	330-EDV	0.5 ml	Varies	999	Use as a low control serum for IgM ELISA test for equine. Contact laboratory for pricing.
West Nile negative antiserum for IgM capture ELISA (horse)	305-EDV	1.0 ml	Varies	1434	Use as a negative control serum for IgM capture ELISA test system for equine
West Nile negative antiserum for virus neutralization (VN) (horse)	306-EDV	2.0 ml	Varies	1435	Use as a negative control serum for performing VN or plaque reduction neutralization test for West Nile

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National Veterinary Services Laboratories
Bacteriology Reagents

Reagent Name	Reagent Code	Amount/ Vial	Tests/ Vial	User Fee Code	Reagent Description
Anaplasma enzyme-linked immunosorbent assay (ELISA) proficiency test	ANP-CHK	Varies	Varies	966	A panel of serum samples is used to monitor proficiency of laboratory personnel.
Anaplasma marginale stabilate	141-STP	4.5 ml	1	1313	Puerto Rico--61, 5/7/86 strain, stabilate is used to initiate infection in donor animals.
Anaplasma marginale stabilate	141-STB	4.5 ml	1	1313	Virginia strain, stabilate is used to initiate infection in donor animals.
Anaplasmosis bovine serum factor for the anaplasmosis card test	147	1.0 ml	35	1352	Standardized bovine serum factor for rapid card test for anaplasmosis, minimum order 5 (1 ml) vials
Anaplasmosis card test buffered antigen	148	2.0 ml	100	1300	Buffered card test antigen for rapid card test
Anaplasmosis card test kit with reagents	140-CMP	400/kit	400/kit	1304	Complete kit for the diagnosis of bovine anaplasmosis
Anaplasmosis card test kit without reagents	140	N/A	N/A	1307	Kit contains all necessary components, excluding reagents
Anaplasmosis card test negative control serum	146	1.0 ml	35	1434	Reference control negative serum for rapid card test
Anaplasmosis card test strong positive control serum	145	1.0 ml	400	1392	Reference control antiserum for rapid card test
Anaplasmosis card test weak positive control serum	149	1.0 ml	400	1392	Reference control antiserum for rapid card test
Anaplasmosis complement fixation test negative control serum	142-N	1.0 ml	30	1434	Reference control serum for the complement fixation test
Anaplasmosis complement fixation test positive control serum	142-H	1.0 ml	30	1392	Reference control antiserum for the complement fixation test
Anaplasmosis complement fixation test positive control serum	142-L	1.0 ml	30	1392	Reference control antiserum for the complement fixation test
Anaplasmosis complement fixation test positive control serum	142-M	1.0 ml	30	1392	Reference control antiserum for the complement fixation test
Anaplasmosis high antibody card test control serum	143-A	1.0 ml	400	1393	Reference control acute antiserum for rapid card test for anaplasmosis

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Reagent Name	Reagent Code	Amount/ Vial	Tests/ Vial	User Fee Code	Reagent Description
Anaplasmosis high titer positive control serum	143-H	1.0 ml	30	1392	Reference control for the complement fixation test
Anaplasmosis negative check test serum	142-CTN	1.0 ml	30	1434	Reference control serum for the complement fixation test
Babesia bigemina antiserum for the indirect fluorescent antibody test	203-IFA	1.0 ml	35	1392	Reference control for the IFA test
Babesia bigemina complement fixation test antigen	200	1.0 ml	30	1410	Antigen is used in the complement fixation test for detection of antibodies to Babesia bigemina.
Babesia bigemina indirect fluorescent antibody (IFA) test slides	200-IFA	10/pkg	6/slide	897	Blood smear slides from an animal infected with Babesia bigemina, the slides are used as antigen slides in the IFA test to detect antibodies to Babesia bigemina.
Babesia bigemina medium titer antiserum	203-MWA	1.0 ml	Varies	1392	Washington strain, medium positive control titer for use in the complement fixation test for bovine babesiosis
Babesia bigemina medium titer antiserum	203-MPR	1.0 ml	40	1392	Puerto Rico strain, medium positive control titer for use in the complement fixation test for bovine babesiosis
Babesia bovis card test antigen	208-CT	2.0 ml	100	1411	Antigen is used in the rapid card test for detecting antibodies to Babesia bovis.
Babesia bovis card test weak positive serum	205-W	1.0 ml	40	1392	Weak positive control serum used in the rapid card test for Babesia bovis
Babesia bovis complement fixation test antigen	208-CF	1.0 ml	30	1410	Puerto Rico strain, antigen used in the complement fixation and immunoblot tests to detect antibodies to Babesia bovis
Babesia bovis high titer antiserum	205-HWA	1.0 ml	40	1392	Washington strain, high titer positive control serum used in serologic tests for detecting antibodies to Babesia bovis
Babesia bovis indirect fluorescent antibody (IFA) slides	208-IFA	10/pkg	6/slide	897	Blood smear slides from an animal infected with Babesia bovis, the slides are used as antigen slides in the IFA test to detect antibodies to Babesia bovis.
Babesia bovis low titer antiserum	205-L	1.0 ml	40	1392	Washington strain, low titer positive control serum used in the serologic tests for detecting antibodies to Babesia bovis
Babesia caballi antigen indirect fluorescent antibody (IFA) slides	73-IFA	10/pkg	6/slide	897	Blood smear slides from a horse infected with Babesia caballi, the slides are used as antigen slides in the IFA test to detect antibodies to Babesia caballi.
Babesia caballi complement fixation (CF) test antigen	73	1.0 ml	40	1410	Antigen used in the CF test to detect antibodies to Babesia caballi
Babesia caballi positive control serum (high titer)	77-H	1.0 ml	40	1392	High titer positive control serum used in serologic tests to detect antibodies to Babesia caballi

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Reagent Name	Reagent Code	Amount/ Vial	Tests/ Vial	User Fee Code	Reagent Description
Babesia caballi positive control serum (low titer)	77-L	1.0 ml	40	1392	Low titer positive control serum used in serologic tests to detect antibodies to Babesia caballi
Babesia caballi positive control serum (medium titer)	77-M	1.0 ml	40	1392	Medium titer positive control serum used in serologic tests to detect antibodies to Babesia caballi
Babesia caballi weak positive serum for agar gel immunodiffusion (AGID)	77-W	1.0 ml	NA	1392	Weak positive control serum used in the AGID test to detect antibodies to Babesia caballi
Babesia equi antigen indirect fluorescent antibody (IFA) slides	72-IFA	10/pkg	6/slide	897	Blood smear slides from a horse infected with Babesia equi, the slides are used as antigen slides in the IFA test to detect antibodies to Babesia equi.
Babesia equi complement fixation (CF) test antigen	72	1.0 ml	40	1410	Antigen is used in the CF test to detect antibodies to Babesia
Babesia equi positive control serum (high titer)	75-H	1.0 ml	40	1392	High titer positive control serum used in serologic tests to detect antibodies to Babesia equi
Babesia equi positive control serum (low titer)	75-L	1.0 ml	40	1392	Low titer positive control serum used in serologic tests to detect antibodies to Babesia equi
Babesia equi positive control serum (medium titer)	75-M	1.0 ml	40	1392	Medium titer positive control serum used in serologic tests to detect antibodies to Babesia equi
Bovine babesia complement fixation (CF) test negative serum	202-N	1.0 ml	40	1434	Negative control serum used in the CF test for bovine babesia
Bovine negative complement fixation (CF) test antigen	204	1.0 ml	40	1396	Blood-derived antigen from noninfected cattle, used as a negative control antigen in the CF test for detecting antibodies to bovine Babesia species
Bovine serum factor (BSF) droppers	144-BFD	N/A	N/A	999	Contact laboratory for pricing.
Brucella antigen - Brucella abortus card test antigen, buffered Brucella antigen--(BBA), or Rose Bengal (RB) antigen	150-AMP	18.0 ml	500	1368 *	Antigen is used with the brucellosis card test kit (150-KIT). 6 ampules @ 3 ml each/box
Brucella antigen - Brucella abortus card test antigen, buffered Brucella antigen--(BBA), or Rose Bengal (RB) antigen	10-S	60.0 ml	2000	1356 *	Antigen is also used in the rapid automated presumptive (RAP) test
Brucella antigen - Brucella abortus complement fixation test antigen	3	60.0 ml	Varies	1356 *	Antigen is also used for the standard tube test
Brucella antigen - Brucella abortus plate antigen	1	60.0 ml	500	1356 *	Antigen used in the standard plate test

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Reagent Name	Reagent Code	Amount/ Vial	Tests/ Vial	User Fee Code	Reagent Description
Brucella antigen - Brucella abortus rapid automated presumptive (RAP) test antigen	10-S	60.0 ml	2000	1356 *	Antigen is also used in the card test
Brucella antigen - Brucella abortus ring test antigen (BRT)	5	60.0 ml	500	1380 *	Antigen used in the brucellosis milk ring test
Brucella antigen - Brucella abortus rivanol plate antigen	6	60.0 ml	500	1356 *	Antigen used in the rivanol plate agglutination test. Rivanol solution is also needed to perform the test.
Brucella antigen - Brucella abortus rivanol solution	7	60.0 ml	150	1383 *	Used in the rivanol plate agglutination test. Three bottles of rivanol solution are needed for each bottle of rivanol antigen.
Brucella antigen - Brucella abortus tube antigen	3	60.0 ml	1500	1356 *	Antigen is also used for the complement fixation test.
Brucella antigen - Brucella canis 2-ME tube agglutination antigen	17	25.0 ml	500	1365	Antigen used in the B. canis 2-ME tube agglutination test
Brucella antigen - Brucella canis enzyme-linked immunosorbent assay antigen	17-ELA	2.0 ml	Varies	1336	
Brucella antigen - Brucella ovis complement fixation antigen	9-CF	2.0 ml	Varies	1332	
Brucella antigen - Brucella ovis ELISA antigen	9-ELA	2.0 ml	Varies	1336	
Brucella antigen - Brucellosis card test kit without antigen	150-KIT	N/A	500	1371 *	Kit contains cards, capillary tubes, stirrers, and antigen droppers, use 150-KIT with card test antigen (150-AMP). Only small quantities for research and investigational studies are shipped from the NVSL. Eradication program needs are met through warehouse requests.
Brucella antigen - buffered Brucella antigen	10-G	60.0 ml	2000	1356 *	3% cell concentration for testing small ruminants on the brucella card test
Brucella antigen - buffered Brucella plate antigen (BAPA test)	2	60.0 ml	200	1362 *	
Brucella canis culture	BC-R65	1.0 ml	N/A	1346	Strain RM6/66, reference strain, ATCC 23365
Brucella control serum - Brucella abortus complement fixation high positive control serum	12-H	2.0 ml	Varies	1339 *	Serum is used in the Brucella abortus complement fixation test to monitor the functioning of test systems.
Brucella control serum - Brucella abortus complement fixation low positive control serum	12-L	2.0 ml	Varies	1339 *	Serum is used in the Brucella abortus complement fixation test to monitor the functioning of test systems.

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Reagent Name	Reagent Code	Amount/ Vial	Tests/ Vial	User Fee Code	Reagent Description
Brucella control serum - Brucella abortus complement fixation medium positive control serum	12-M	2.0 ml	Varies	1339 *	Serum is used in the Brucella abortus complement fixation test to monitor the functioning of test systems.
Brucella control serum - Brucella abortus complement fixation negative control serum	12-N	2.0 ml	Varies	1435 *	Serum is used in the Brucella abortus complement fixation test to monitor the functioning of test systems.
Brucella control serum - Brucella abortus rapid automated presumptive (RAP) negative control serum	612-RN	5.0 ml	250	1436 *	Serum is used in the Brucella abortus RAP test to monitor the functioning of test systems.
Brucella control serum - Brucella abortus rapid automated presumptive (RAP) test positive control serum	612-RP	5.0 ml	250	1340 *	Serum is used in the Brucella abortus RAP test to monitor the functioning of test systems.
Brucella control serum - Brucella canis high titer positive control serum	212-H	1.0 ml	Varies	1338	Serum is used in the Brucella canis 2-ME tube agglutination test to monitor the functioning of the test system.
Brucella control serum - Brucella canis medium titer positive control serum	212-M	1.0 ml	Varies	1338	Serum is used in the Brucella canis 2-ME tube agglutination test to monitor the functioning of the test system.
Brucella control serum - Brucella canis negative control serum	212-N	1.0 ml	Varies	1434	Serum is used in the Brucella canis 2-ME tube agglutination test to monitor the functioning of the test system.
Brucella control serum - Brucella monospecific antiserum (A)	312-A5	5.0 ml	Varies	999	Serum is used in the identification and biotyping of Brucella species. Contact lab for pricing.
Brucella control serum - Brucella monospecific antiserum (A)	312-A	1.0 ml	Varies	1442	Serum is used in the identification and biotyping of Brucella species
Brucella control serum - Brucella monospecific antiserum (M)	312-M	1.0 ml	Varies	1442	Serum is used in the identification and biotyping of Brucella species.
Brucella control serum - Brucella monospecific antiserum (M)	312-M5	5.0 ml	Varies	999	Serum is used in the identification and biotyping of Brucella species. Contact lab for pricing.
Brucella control serum - Brucella ovis Hill's complement fixation (CF) high positive control serum	412-H	1.0 ml	Varies	1338	Serum is used in the Brucella ovis CF test to monitor the functioning of test systems.
Brucella control serum - Brucella ovis Hill's complement fixation (CF) low positive control serum	412-L	1.0 ml	Varies	1338	Serum is used in the Brucella ovis CF test to monitor the functioning of test systems (4+10).
Brucella control serum - Brucella ovis Hill's complement fixation (CF) medium positive control serum	412-M	1.0 ml	Varies	1338	Serum is used in the Brucella ovis CF test to monitor the functioning of test systems (4 + 20).

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Reagent Name	Reagent Code	Amount/ Vial	Tests/ Vial	User Fee Code	Reagent Description
Brucella control serum - Brucella ovis Hill's complement fixation (CF) negative control serum	412-N	1.0 ml	250	1434	Serum is used in the Brucella ovis CF test to monitor the functioning of test systems.
Brucella control serum - Brucella suis positive control serum	712	1.0 ml	Varies	1338	Serum is used to monitor the functioning of test systems when using Brucella abortus serologic tests to diagnose swine brucellosis.
Brucella control serum - Brucella suis, negative control serum	712-N	1.0 ml	Varies	1434	Swine brucellosis negative control serum
Brucella culture - Brucella abortus strain 1119-3 original seed	16	2.0 ml	N/A	1346	Culture used for the production of Brucella abortus antigens
Brucella culture - Brucella abortus strain 19 original seed	15	2.0 ml	N/A	1346	Culture used for the production of Brucella abortus strain 19 vaccine
Brucella neotomae culture	BN-R59	1.0 ml	N/A	1346	Strain 5K33, reference strain, ATCC 23459
Brucella ovis culture	BO-R40	1.0 ml	N/A	1346	Strain 63/290, reference strain, ATCC 25840
Brucella phage BK2	BP-BK2	1.0 ml	N/A	1346	Host strain = B. melitensis strain 16M, low viability
Brucella phage Fi	BP-FI	1.0 ml	N/A	1346	Host strain = B. abortus strain 19
Brucella phage R/C	BP-RC	1.0 ml	N/A	1346	Host strain = B. canis strain RM6/66
Brucella phage Tbilisi	BP-TB	1.0 ml	N/A	1346	Also known as Tb, host strains = B. abortus strains 544 and 19, ATCC 23448-B1
Brucella phage Wb	BP-WB	1.0 ml	N/A	1346	Host strains = B. abortus strain 19 and B. suis strain 1330
Brucella proficiency test - Brucella abortus check test serum	512	Varies	Varies	966 *	A panel of serum samples is used to monitor proficiency of laboratory personnel conducting serologic tests. Check tests are only distributed for official proficiency test purposes.
Contagious equine metritis (CEM) - Amies transport medium with charcoal	CEM-001	12 swabs	12	898	For transportation of equine swabs to NVSL for CEM culture. Must be refrigerated during shipment.
Culture check test	CUL-CHK	N/A	N/A	965	Contact laboratory for information--(515) 663-7565.
Dourine (Trypanosoma equiperdum) indirect fluorescent antibody (IFA) test antigen slides	161-IFA	10/pkg	6/slide	897	Blood smear antigen used in the IFA test to detect antibodies to dourine.
Dourine complement fixation test (CF) antigen	160	1.0 ml	50	1386	Antigen is used in the CF test for detection of antibodies to Trypanosoma equiperdum.
Dourine enhancement serum	161-AG	1.0 ml	30	1386	Enhancement serum for sensitivity control in the agar gel immunodiffusion test
Dourine low positive control serum	161-L	1.0 ml	40	1392	Low titer positive control serum (titer to 1:20) used in serologic tests to detect antibodies to Trypanosoma equiperdum.

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Reagent Name	Reagent Code	Amount/ Vial	Tests/ Vial	User Fee Code	Reagent Description
Dourine medium positive control serum	161-M	1.0 ml	40	1392	Medium positive control serum (titer 1:20 to 1:40) used in serologic tests to detect antibodies to Trypanosoma equiperdum.
Dourine positive control serum	161-H	1.0 ml	40	1392	High titer positive control serum used in serologic tests to detect antibodies to Trypanosoma equiperdum.
Eperythrozoon wenyoni agar gel immunodiffusion (AGID) enhancement serum	402-M	1.0 ml	30	1410	Enhancement serum for use in the AGID test for Eperythrozoon wenyoni detection
Eperythrozoon wenyoni complement fixation (CF) test antigen	400-CF	2.0 ml	20	1411	Antigen used in the CF test to detect antibodies to Eperythrozoon wenyoni
Eperythrozoon wenyoni complement fixation test high titer serum	402-H	1.0 ml	40	1392	High titer positive control used in serologic tests to detect antibodies to Eperythrozoon wenyoni
Eperythrozoon wenyoni complement fixation test low titer serum	402-L	1.0 ml	40	1392	Low titer positive control used in serologic tests to detect antibodies to Eperythrozoon wenyoni
Eperythrozoon wenyoni indirect fluorescent antibody (IFA) slides	400-IFA	10/pkg	6/slide	897	Antigen used in the IFA test for Eperythrozoon wenyoni
Eperythrozoon wenyoni soluble agar gel immunodiffusion (AGID) antigen	400-AG	3.0 ml	60	999	Antigen used in the AGID test to detect antibodies to Eperythrozoon wenyoni. Contact lab for pricing.
Eperythrozoon wenyoni stabilate	400-STB	2.0 ml	1	1448	Used to initiate infection in host
Equine negative serum	76	1.0 ml	40	1434	Equine serum negative for antibodies to B. equi, B. caballi, T. equiperdum, and B. (Pseudomonas) mallei. Serum is used as negative control in the serologic tests for equine piroplasmosis, dourine and glanders.
Glanders complement fixation test (CF) antigen	165	2.0 ml	50	1407	Antigen is used in the CF test for detecting antibodies to Burkholderia (Pseudomonas) mallei. Use at 1:100 in plates and 1:128 in tubes
Glanders low titer positive control serum	166-L	1.0 ml	40	1485	Low titer positive control serum used in serologic tests to detect antibodies to Burkholderia (Pseudomonas) mallei
Glanders positive control serum, high titer	166-H	1.0 ml	40	1485	Control serum for the CF test
Glanders positive control serum, low titer, lyophilized	166-LY	1.0 ml	40	1485	Control serum for the CF test
Leptospira microscopic agglutination negative control serum	LEP-NEG	2.0 ml	Varies	1435	Used as a negative control for the Leptospira microscopic agglutination test
Leptospira multivalent fluorescent antibody conjugate	LEP-FAC	1.0 ml	Varies	1328	Rabbit origin multivalent fluorescent antibody conjugate (FITC-bound)

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Reagent Name	Reagent Code	Amount/ Vial	Tests/ Vial	User Fee Code	Reagent Description
Leptospira reference antiserum, rabbit origin, 200+ strains other than those listed for MAT purposes	LEP-ANT	2.0 ml	Varies	1443	Reference antiserum for Leptospira generally not used in microscopic agglutination testing; contact laboratory regarding serovar/strain availability at (515) 663-7595.
Leptospira reference cultures, semi-solid or liquid form, 200+ strains other than those listed	LEP-CUL	6.0/10.0 ml	Varies	1343	Reference strains of Leptospira generally not used in microscopic agglutination testing; contact laboratory regarding serovar/strain availability at (515) 663-7595.
Leptospira reference serovar australis, strain Ballico, liquid culture	ARL-010	10.0 ml	Varies	1343	Liquid culture for use in microscopic agglutination test
Leptospira reference serovar australis, strain Ballico, rabbit antiserum	ARA-010	2.0 ml	Varies	1443	Reference control antiserum for microscopic agglutination test
Leptospira reference serovar australis, strain Ballico, semi-solid culture	ARS-010	6.0 ml	Varies	1343	Semi-solid culture for stock culture purposes
Leptospira reference serovar autumnalis, strain Akiyami A, liquid culture	ATL-010	10.0 ml	Varies	1343	Liquid culture for use in microscopic agglutination test
Leptospira reference serovar autumnalis, strain Akiyami A, rabbit antiserum	ATA-010	2.0 ml	Varies	1443	Reference control antiserum for microscopic agglutination test
Leptospira reference serovar autumnalis, strain Akiyami A, semi-solid culture	ATS-010	6.0 ml	Varies	1343	Semi-solid culture for stock culture purposes
Leptospira reference serovar ballum, strain S 102, liquid culture	BML-011	10.0 ml	Varies	1343	Liquid culture for use in microscopic agglutination test
Leptospira reference serovar ballum, strain S 102, rabbit antiserum	BMA-011	2.0 ml	Varies	1443	Reference control antiserum for microscopic agglutination test
Leptospira reference serovar ballum, strain S 102, semi-solid culture	BMS-011	6.0 ml	Varies	1343	Semi-solid culture for stock culture purposes
Leptospira reference serovar bataviae, strain Van Tienen, liquid culture	BTL-020	10.0 ml	Varies	1343	Liquid culture for use in microscopic agglutination test
Leptospira reference serovar bataviae, strain Van Tienen, rabbit antiserum	BTA-020	2.0 ml	Varies	1443	Reference control antiserum for microscopic agglutination test

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Reagent Name	Reagent Code	Amount/ Vial	Tests/ Vial	User Fee Code	Reagent Description
Leptospira reference serovar bataviae, strain Van Tienen, semi-solid culture	BTS-020	6.0 ml	Varies	1343	Semi-solid culture for stock culture purposes
Leptospira reference serovar bratislava, strain Jez Bratislava, liquid culture	ARL-050	10.0 ml	Varies	1343	Liquid culture for use in microscopic agglutination test
Leptospira reference serovar bratislava, strain Jez Bratislava, rabbit antiserum	ARA-050	2.0 ml	Varies	1443	Reference control antiserum for microscopic agglutination test
Leptospira reference serovar bratislava, strain Jez Bratislava, semi-solid culture	ARS-050	6.0 ml	Varies	1343	Semi-solid culture for stock culture purposes
Leptospira reference serovar canicola, strain Hond Utrecht IV, liquid culture	CAL-010	10.0 ml	Varies	1343	Liquid culture for use in microscopic agglutination test
Leptospira reference serovar canicola, strain Hond Utrecht IV, rabbit antiserum	CAA-010	2.0 ml	Varies	1443	Reference control antiserum for microscopic agglutination test
Leptospira reference serovar canicola, strain Hond Utrecht IV, semi-solid culture	CAS-010	6.0 ml	Varies	1343	Semi-solid culture for stock culture purposes
Leptospira reference serovar copenhageni (ictero reference), strain M-20, liquid culture	ICL-020	10.0 ml	Varies	1343	Liquid culture for use in microscopic agglutination test
Leptospira reference serovar copenhageni (ictero reference), strain M-20, rabbit antiserum	ICA-020	2.0 ml	Varies	1443	Reference control antiserum for microscopic agglutination test
Leptospira reference serovar copenhageni (ictero reference), strain M-20, semi-solid culture	ICS-020	6.0 ml	Varies	1343	Semi-solid culture for stock culture purposes
Leptospira reference serovar grippotyphosa, strain Andaman, liquid culture	GRL-020	10.0 ml	Varies	1343	Liquid culture for use in microscopic agglutination test
Leptospira reference serovar grippotyphosa, strain Andaman, rabbit antiserum	GRA-020	2.0 ml	Varies	1443	Reference control antiserum for microscopic agglutination test

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Reagent Name	Reagent Code	Amount/ Vial	Tests/ Vial	User Fee Code	Reagent Description
Leptospira reference serovar grippotyphosa, strain Andaman, semi-solid culture	GRS-020	6.0 ml	Varies	1343	Semi-solid culture for stock culture purposes
Leptospira reference serovar hardjo, strain Hardjoprajtino, liquid culture	SJL-060	10.0 ml	Varies	1343	Liquid culture for use in microscopic agglutination test
Leptospira reference serovar hardjo, strain Hardjoprajtino, rabbit antiserum	SJA-060	2.0 ml	Varies	1443	Reference control antiserum for microscopic agglutination test
Leptospira reference serovar hardjo, strain Hardjoprajtino, semi-solid culture	SJS-060	6.0 ml	Varies	1343	Semi-solid culture for stock culture purposes
Leptospira reference serovar hebdomadis, strain Hebdomadis, liquid culture	HBL-010	10.0 ml	Varies	1343	Liquid culture for use in microscopic agglutination test
Leptospira reference serovar hebdomadis, strain Hebdomadis, rabbit antiserum	HBA-010	2.0 ml	Varies	1443	Reference control antiserum for microscopic agglutination test
Leptospira reference serovar hebdomadis, strain Hebdomadis, semi-solid culture	HBS-010	6.0 ml	Varies	1343	Semi-solid culture for stock culture purposes
Leptospira reference serovar pomona, strain Pomona, liquid	POL-010	10.0 ml	Varies	1343	Liquid culture for use in microscopic agglutination test
Leptospira reference serovar pomona, strain Pomona, rabbit antiserum	POA-010	2.0 ml	Varies	1443	Reference control antiserum for microscopic agglutination test
Leptospira reference serovar pomona, strain Pomona, semi-solid culture	POS-010	6.0 ml	Varies	1343	Semi-solid culture for stock culture purposes
Leptospira reference serovar pyrogenes, strain Salinem, liquid culture	PYL-010	10.0 ml	Varies	1343	Liquid culture for use in microscopic agglutination test
Leptospira reference serovar pyrogenes, strain Salinem, rabbit antiserum	PYA-010	2.0 ml	Varies	1443	Reference control antiserum for microscopic agglutination test
Leptospira reference serovar pyrogenes, strain Salinem, semi-solid culture	PYS-010	6.0 ml	Varies	1343	Semi-solid culture for stock culture purposes

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Reagent Name	Reagent Code	Amount/ Vial	Tests/ Vial	User Fee Code	Reagent Description
Leptospira reference serovar sejroe, strain M 84, liquid culture	SJL-010	10.0 ml	Varies	1343	Liquid culture for use in microscopic agglutination test
Leptospira reference serovar sejroe, strain M 84, rabbit antiserum	SJA-010	2.0 ml	Varies	1443	Reference control antiserum for microscopic agglutination test
Leptospira reference serovar sejroe, strain M 84, semi-solid culture	SJS-010	6.0 ml	Varies	1343	Semi-solid culture for stock culture purposes
Leptospira reference serovar szwajizak, strain Szwajizak, liquid culture	MIL-020	10.0 ml	Varies	1343	Liquid culture for use in microscopic agglutination test
Leptospira reference serovar szwajizak, strain Szwajizak, rabbit antiserum	MIA-020	2.0 ml	Varies	1443	Reference control antiserum for microscopic agglutination test
Leptospira reference serovar szwajizak, strain Szwajizak, semi-solid culture	MIS-020	6.0 ml	Varies	1343	Semi-solid culture for stock culture purposes
Leptospira reference serovar tarassovi, strain Perepelicin, liquid culture	TAL-010	10.0 ml	Varies	1343	Liquid culture for use in microscopic agglutination test
Leptospira reference serovar tarassovi, strain Perepelicin, rabbit antiserum	TAA-010	2.0 ml	Varies	1443	Reference control antiserum for microscopic agglutination test
Leptospira reference serovar tarassovi, strain Perepelicin, semi-solid culture	TAS-010	6.0 ml	Varies	1343	Semi-solid culture for stock culture purposes
Mycobacterium - Johne's fecal proficiency test kit	JFE-CHK	NA	NA	965	26 - 10ml vials of feces. Conducted yearly, contact laboratory at (515) 663-7676 or 7388
Mycobacterium - Johne's fecal pooling kit	JFE-POL	NA	NA	965	25 - 10ml vials of feces. Conducted yearly, contact laboratory at (515) 663-7676 or 7388
Mycobacterium antigen - avian old tuberculin	132-A10	10.0 ml	100	1423	Mycobacterium avium old tuberculin intradermic is used to test bovine, swine, and other species of animals for sensitivity to Mycobacterium avium tuberculoprotein.
Mycobacterium antigen - avian old tuberculin	132-A2	2.0 ml	20	1422	Mycobacterium avium old tuberculin intradermic is used to test bovine, swine, and other species of animals for sensitivity to Mycobacterium avium tuberculoprotein.
Mycobacterium antigen - Johne's complement fixation antigen	133-CF	3.0 ml	Varies	1333	The antigen is used in the Johne's complement fixation test for the serological diagnosis of Mycobacterium paratuberculosis.

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Reagent Name	Reagent Code	Amount/ Vial	Tests/ Vial	User Fee Code	Reagent Description
Mycobacterium antigen - Johnin purified protein derivative (PPD) tuberculin	134	2.0 ml	20	1426	PPD Johnin is used in bovine to determine their relative sensitivity to Mycobacteria paratuberculosis by the caudal fold method.
Mycobacterium antigen - mycobacterium avium purified protein derivative (PPD) (export testing)	30-EXP	2.0 ml	20	1426	PPD avium export (1 mg/ml protein) tuberculin is used to test bovine and other species of animals for relative sensitivity to Mycobacterium avium by the caudal fold or other appropriate methods.
Mycobacterium antigen - mycobacterium bovis purified protein derivative (PPD) (caudal fold test)	131-B	10.0 ml	100	1427 *	One mg/ml protein tuberculin is used to test bovine and other species of animals for sensitivity to Mycobacterium bovis tuberculoprotein.
Mycobacterium antigen - mycobacterium bovis purified protein derivative (PPD) (cervical test)	31-CER	2.0 ml	20	1426 *	PPD bovis cervical (2 mg/ml protein) tuberculin is used to test bovine and other species of animals for relative sensitivity to Mycobacterium bovis tuberculoprotein by the cervical method.
Mycobacterium antigen - mycobacterium paratuberculosis (Johnin) old tuberculin (OT) intradermic	133	2.0 ml	20	1422	Johnin OT is used to test bovine and other species of animals for sensitivity to Mycobacterium paratuberculosis tuberculoprotein.
Mycobacterium antigen - mycobacterium paratuberculosis (Johnin) old tuberculin (OT) intradermic	133-L	10.0 ml	100	1423	Johnin OT is used to test bovine and other species animals for sensitivity to Mycobacterium paratuberculosis tuberculoprotein.
Mycobacterium antigen - purified protein derivative (PPD) avian balanced tuberculin (comparative cervical test)	30-BAL	1.0 ml	10 Max.	1425 *	Used to test bovine and other species of animals for relative sensitivity to Mycobacterium bovis and M. avium tuberculoprotein by the comparative cervical method--contains 0.4 mg protein/ml
Mycobacterium antigen - purified protein derivative (PPD) bovis balanced tuberculin (comparative cervical test)	31-BAL	1.0 ml	10 Max.	1425 *	Used to test bovine and other species of animals for relative sensitivity to Mycobacterium bovis and M. avium tuberculoprotein by the comparative cervical method--contains 1.0 mg protein/ml.
Mycobacterium control serum - Johne's complement fixation negative serum	133-N	2.0 ml	Varies	1435	Serum is used in the Johne's disease complement fixation test to monitor the functioning of the test system.
Mycobacterium control serum - Johne's complement fixation positive serum	133-P	1.0 ml	Varies	1338	Serum is used in the Johne's disease complement fixation test to monitor the functioning of the test system.
Mycobacterium control serum - Johne's enzyme-linked immunosorbent assay (ELISA) high positive control serum	137-HP	1.0 ml	Varies	1338	Serum is used in the Johne's ELISA test to monitor the functioning of test systems

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Reagent Name	Reagent Code	Amount/ Vial	Tests/ Vial	User Fee Code	Reagent Description
Mycobacterium control serum - Johne's enzyme-linked immunosorbent assay (ELISA) low positive 1 control serum	137-LP1	1.0 ml	Varies	1338	Serum is used in the Johne's ELISA test to monitor the functioning of test systems
Mycobacterium control serum - Johne's enzyme-linked immunosorbent assay (ELISA) low positive 2 control serum	137-LP2	1.0 ml	Varies	1338	Serum is used in the Johne's ELISA test to monitor the functioning of test systems
Mycobacterium control serum - Johne's enzyme-linked immunosorbent assay (ELISA) negative control serum	137-N	2.0 ml	Varies	1435	Serum is used in the Johne's ELISA test to monitor the functioning of test systems
Mycobacterium proficiency test - Johne's check test	JOH-CHK	N/A	N/A	966	A panel of serum samples is used to monitor the proficiency of laboratory personnel conducting Johne's enzyme-linked immunosorbent assay.
Mycoplasma - chicken serum, negative for Mycoplasma antibodies	119	2.0 ml	Varies	1435	Used as a negative control in plate or hemagglutination-inhibition test
Mycoplasma - turkey serum, negative for Mycoplasma antibodies	109	2.0 ml	Varies	1435	Used as a negative control in plate or hemagglutination-inhibition tests
Mycoplasma gallisepticum hemagglutination antigen	100	5.0 ml	Varies	1430	Used to detect antibodies in poultry serum by hemagglutination-inhibition test
Mycoplasma gallisepticum positive control serum, chicken origin, for use in plate test	104-P	2.0 ml	Varies	1321	Used as a positive control serum in the plate test; plate test antigen is available commercially.
Mycoplasma gallisepticum positive control serum, chicken origin, range in titer of 1:160 - 1:320	104-M	2.0 ml	Varies	1321	Used as a positive control serum in hemagglutination-inhibition test
Mycoplasma gallisepticum positive control serum, chicken origin, range in titer of 1:40 - 1:80	104-L	2.0 ml	Varies	1321	Used as a positive control serum in hemagglutination-inhibition test
Mycoplasma gallisepticum positive control serum, chicken origin, range in titer of 1:640 - 1:1280	104-H	2.0 ml	Varies	1321	Used as a positive control serum in hemagglutination-inhibition test
Mycoplasma gallisepticum positive control serum, turkey origin, for use in plate test	103-P	2.0 ml	Varies	1321	Used as a positive control serum in the plate test; plate test antigen is available commercially.

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Reagent Name	Reagent Code	Amount/ Vial	Tests/ Vial	User Fee Code	Reagent Description
Mycoplasma gallisepticum positive control serum, turkey origin, range in titer of 1:160 - 1:320	103-M	2.0 ml	Varies	1321	Used as a positive control serum in hemagglutination-inhibition test
Mycoplasma gallisepticum positive control serum, turkey origin, range in titer of 1:40 - 1:80	103-L	2.0 ml	Varies	1321	Used as a positive control serum in hemagglutination-inhibition test
Mycoplasma gallisepticum positive control serum, turkey origin, range in titer of 1:640 - 1:1280	103-H	2.0 ml	Varies	1321	Used as a positive control serum in hemagglutination-inhibition test
Mycoplasma meleagridis hemagglutination antigen	110	5.0 ml	Varies	1430	Used to detect antibodies in poultry serum by hemagglutination-inhibition test
Mycoplasma meleagridis positive control serum, turkey origin, for use in plate test	113-P	2.0 ml	Varies	1321	Used as a positive control serum in the plate test; plate test antigen is available commercially.
Mycoplasma meleagridis positive control serum, turkey origin, range in titer of 1:160 - 1:320	113-M	2.0 ml	Varies	1321	Used as a positive control serum in hemagglutination-inhibition test
Mycoplasma meleagridis positive control serum, turkey origin, range in titer of 1:40 - 1:80	113-L	2.0 ml	Varies	1321	Used as a positive control serum in hemagglutination-inhibition test
Mycoplasma meleagridis positive control serum, turkey origin, range in titer of 1:640 - 1:1280	113-H	2.0 ml	Varies	1321	Used as a positive control serum in hemagglutination-inhibition test
Mycoplasma synoviae conjugate (chicken serum)	MS-C	0.5 ml	Varies	1327	Fluorescent antibody conjugate for confirmation of Mycoplasma synoviae
Mycoplasma synoviae conjugate (rabbit serum)	MS-R	0.5 ml	Varies	1327	Fluorescent antibody conjugate for confirmation of Mycoplasma synoviae
Mycoplasma synoviae hemagglutination antigen	120	5.0 ml	Varies	1430	Used to detect antibodies in poultry serum by hemagglutination-inhibition test
Mycoplasma synoviae positive control serum, chicken origin, for use in plate test	124-P	2.0 ml	Varies	1321	Used as a positive control serum in the plate test; plate test antigen is available commercially.
Mycoplasma synoviae positive control serum, chicken origin, range in titer of 1:160 - 1:320	124-M	2.0 ml	Varies	1321	Used as a positive control serum in hemagglutination-inhibition test

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Reagent Name	Reagent Code	Amount/ Vial	Tests/ Vial	User Fee Code	Reagent Description
Mycoplasma synoviae positive control serum, chicken origin, range in titer of 1:40 - 1:80	124-L	2.0 ml	Varies	1321	Used as a positive control serum in hemagglutination-inhibition test
Mycoplasma synoviae positive control serum, chicken origin, range in titer of 1:640 - 1:1280	124-H	2.0 ml	Varies	1321	Used as a positive control serum in hemagglutination-inhibition test
Mycoplasma synoviae positive control serum, turkey origin, for use in plate test	123-P	2.0 ml	Varies	1321	Used as a positive control serum in the plate test; plate test antigen is available commercially.
Mycoplasma synoviae positive control serum, turkey origin, range in titer of 1:160 - 1:320	125-M	2.0 ml	Varies	1321	Used as a positive control serum in hemagglutination-inhibition test
Mycoplasma synoviae positive control serum, turkey origin, range in titer of 1:40 - 1:80	125-L	2.0 ml	Varies	1321	Used as a positive control serum in hemagglutination-inhibition test
Mycoplasma synoviae positive control serum, turkey origin, range in titer of 1:640 - 1:1280	125-H	2.0 ml	Varies	1321	Used as a positive control serum in hemagglutination-inhibition test
Pasteurella multocida type 1 antiserum	20-T1	1.0 ml	Varies	1320	Reference control antiserum for use in the gel diffusion precipitin test
Pasteurella multocida type 1, reference culture X-73	21-T1	5.0 ml	Varies	1343	Used to prepare reference control antigen for the gel diffusion precipitin test
Pasteurella multocida type 10 antiserum	20-T10	1.0 ml	Varies	1320	Reference control antiserum for use in the gel diffusion precipitin test
Pasteurella multocida type 10, reference culture P-2100	21-T10	5.0 ml	Varies	1343	Used to prepare reference control antigen for the gel diffusion precipitin test
Pasteurella multocida type 11 antiserum	20-T11	1.0 ml	Varies	1320	Reference control antiserum for use in the gel diffusion precipitin test
Pasteurella multocida type 11, reference culture P-903	21-T11	5.0 ml	Varies	1343	Used to prepare reference control antigen for the gel diffusion precipitin test
Pasteurella multocida type 12 antiserum	20-T12	1.0 ml	Varies	1320	Reference control antiserum for use in the gel diffusion precipitin test
Pasteurella multocida type 12, reference culture P-1573	21-T12	5.0 ml	Varies	1343	Used to prepare reference control antigen for the gel diffusion precipitin test
Pasteurella multocida type 13 antiserum	20-T13	1.0 ml	Varies	1320	Reference control antiserum for use in the gel diffusion precipitin test

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Reagent Name	Reagent Code	Amount/ Vial	Tests/ Vial	User Fee Code	Reagent Description
Pasteurella multocida type 13, reference culture P-1591	21-T13	5.0 ml	Varies	1343	Used to prepare reference control antigen for the gel diffusion precipitin test
Pasteurella multocida type 14 antiserum	20-T14	1.0 ml	Varies	1320	Reference control antiserum for use in the gel diffusion precipitin test
Pasteurella multocida type 14, reference culture P-2225	21-T14	5.0 ml	Varies	1343	Used to prepare reference control antigen for the gel diffusion precipitin test
Pasteurella multocida type 15 antiserum	20-T15	1.0 ml	Varies	1320	Reference control antiserum for use in the gel diffusion precipitin test
Pasteurella multocida type 15, reference culture P-2237	21-T15	5.0 ml	Varies	1343	Used to prepare reference control antigen for the gel diffusion precipitin test
Pasteurella multocida type 16 antiserum	20-T16	1.0 ml	Varies	1320	Reference control antiserum for use in the gel diffusion precipitin test
Pasteurella multocida type 16, reference culture P-2723	21-T16	5.0 ml	Varies	1343	Used to prepare reference control antigen for the gel diffusion precipitin test
Pasteurella multocida type 2 antiserum	20-T2	1.0 ml	Varies	1320	Reference control antiserum for use in the gel diffusion precipitin test
Pasteurella multocida type 2, reference culture M-1404	21-T2	5.0 ml	Varies	1343	USDA permit required. Used to prepare reference control antigen for the gel diffusion precipitin test
Pasteurella multocida type 3 antiserum	20-T3	1.0 ml	Varies	1320	Reference control antiserum for use in the gel diffusion precipitin test
Pasteurella multocida type 3, reference culture P-1059	21-T3	5.0 ml	Varies	1343	Used to prepare reference control antigen for the gel diffusion precipitin test
Pasteurella multocida type 4 antiserum	20-T4	1.0 ml	Varies	1320	Reference control antiserum for use in the gel diffusion precipitin test
Pasteurella multocida type 4, reference culture P-1662	21-T4	5.0 ml	Varies	1343	Used to prepare reference control antigen for the gel diffusion precipitin test
Pasteurella multocida type 5 antiserum	20-T5	1.0 ml	Varies	1320	Reference control antiserum for use in the gel diffusion precipitin test
Pasteurella multocida type 5, reference culture P-1702	21-T5	5.0 ml	Varies	1343	Used to prepare reference control antigen for the gel diffusion precipitin test
Pasteurella multocida type 6 antiserum	20-T6	1.0 ml	Varies	1320	Reference control antiserum for use in the gel diffusion precipitin test
Pasteurella multocida type 6, reference culture P-2192	21-T6	5.0 ml	Varies	1343	Used to prepare reference control antigen for the gel diffusion precipitin test

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Reagent Name	Reagent Code	Amount/ Vial	Tests/ Vial	User Fee Code	Reagent Description
Pasteurella multocida type 7 antiserum	20-T7	1.0 ml	Varies	1320	Reference control antiserum for use in the gel diffusion precipitin test
Pasteurella multocida type 7, reference culture P-1997	21-T7	5.0 ml	Varies	1343	Used to prepare reference control antigen for the gel diffusion precipitin test
Pasteurella multocida type 8 antiserum	20-T8	1.0 ml	Varies	1320	Reference control antiserum for use in the gel diffusion precipitin test
Pasteurella multocida type 8, reference culture P-1581	21-T8	5.0 ml	Varies	1343	Used to prepare reference control antigen for the gel diffusion precipitin test
Pasteurella multocida type 9 antiserum	20-T9	1.0 ml	Varies	1320	Reference control antiserum for use in the gel diffusion precipitin test
Pasteurella multocida type 9, reference culture P-2095	21-T9	5.0 ml	Varies	1343	Used to prepare reference control antigen for the gel diffusion precipitin test
Polysorbate-80 bovine albumin medium (P-80 BA)	LTM-100	100.0 ml	Varies	1415	Medium used to propagate Leptospira for use in microscopic agglutination testing
Polysorbate-80 bovine albumin medium (P-80 BA)	LTM-10	10.0 ml	Varies	1414	Medium used to propagate Leptospira for use in microscopic agglutination testing
Salmonella pullorum high titer control antiserum	28-H	2.0 ml	40	1321	Used as positive control serum with NVSL products 28 and 28-P
Salmonella pullorum low titer control antiserum	28-L	2.0 ml	40	1321	Used as positive control serum with NVSL product 28
Salmonella pullorum negative control antiserum	28-N	2.0 ml	40	1435	Used as negative control serum with NVSL products 28 and 28-P
Salmonella pullorum stained microtiter antigen	28	25.0 ml	500	1446	Stained antigen used to detect antibody to the somatic antigens of Salmonella pullorum
Salmonella pullorum tube test	28-P	5.0 ml	40	1324	Used for detection of antibody against Salmonella pullorum somatic antigens

*** No charge if used as part of an USDA control program**

National Veterinary Services Laboratories
Conjugates and Stains

Reagent Name	Reagent Code	Amount/ Vial	Tests/ Vial	User Fee Code	Reagent Description
Flazo orange counterstain	29	3.0 ml	Varies	1402	Counterstain to quench background fluorescence in fluorescent antibody testing
Goat origin anti-chicken fluorescent antibody (FA) conjugate	291-FA	1.0 ml	Varies	1479	Use in indirect FA tests with chicken serum
Goat origin anti-chicken horseradish peroxidase-labeled conjugate	291-R2	1.0 ml	Varies	1479	Use in enzyme immunoassays with chicken serum
Goat origin anti-guinea pig fluorescent antibody (FA) conjugate	296-FA	1.0 ml	Varies	1479	Use in indirect FA tests with guinea pig serum
Goat origin anti-mouse fluorescent antibody (FA) conjugate	221-FA	1.0 ml	Varies	1479	Use in indirect FA tests with mouse serum
Goat origin anti-mouse horseradish peroxidase-labeled conjugate	221-R2	1.0 ml	Varies	1479	Use in enzyme immunoassays with mouse serum
Goat origin anti-porcine fluorescent antibody (FA) conjugate	191-FA	1.0 ml	Varies	1479	Use in indirect FA tests with porcine serum
Goat origin anti-porcine horseradish peroxidase-labeled conjugate	191-R2	1.0 ml	Varies	1479	Use in enzyme immunoassays with porcine serum
Goat origin anti-rabbit fluorescent antibody (FA) conjugate	171-FA	1.0 ml	Varies	1479	Use in indirect FA tests with rabbit serum
Goat origin anti-rabbit horseradish peroxidase-labeled conjugate	171-R2	1.0 ml	Varies	1479	Use in enzyme immunoassays with rabbit serum
Rabbit origin anti-bovine fluorescent antibody (FA) conjugate	81-FA	1.0 ml	Varies	1479	Use in indirect FA tests with bovine serum
Rabbit origin anti-bovine horseradish peroxidase-labeled conjugate	81-R2	1.0 ml	Varies	1479	Use in enzyme immunoassays with bovine serum
Rabbit origin anti-equine fluorescent antibody (FA) conjugate	71-FA	1.0 ml	Varies	1479	Use in indirect FA tests with equine serum
Rabbit origin anti-equine horseradish peroxidase-labeled conjugate	71-R2	1.0 ml	Varies	1479	Use in enzyme immunoassays with equine serum
Rabbit origin anti-goat fluorescent antibody (FA) conjugate	176-FA	1.0 ml	Varies	1479	Use in indirect FA tests with goat serum

*** No charge if used as part of an USDA control program**

Reagent Name	Reagent Code	Amount/ Vial	Tests/ Vial	User Fee Code	Reagent Description
Rabbit origin anti-goat horseradish peroxidase-labeled conjugate	176-R2	1.0 ml	Varies	1479	Use in enzyme immunoassays with goat serum
Rabbit origin anti-guinea pig fluorescent antibody (FA) conjugate	196-FA	1.0 ml	Varies	1479	Use in indirect FA tests with guinea pig serum
Rabbit origin anti-mouse fluorescent antibody (FA) conjugate	211-FA	1.0 ml	Varies	1479	Use in indirect FA tests with mouse serum
Rabbit origin anti-sheep fluorescent antibody (FA) conjugate	181-FA	1.0 ml	Varies	1479	Use in indirect FA tests with sheep serum

*** No charge if used as part of an USDA control program**

PLEASE READ --

IMPORTANT INFORMATION

Foreign Animal Disease Diagnostic Laboratory (FADDL)

FADDL Diagnostic Services	(631) 323-3322
FADDL Reagents and Vaccine Services	(631) 323-3013
FADDL Shipping Department	(631) 323-3352
FADDL General Assistance	(631) 323-3256, 3206

NOTE!

If an exotic or foreign animal disease agent is suspected, it must first be reported to the State or Federal Veterinarian before shipment. Foreign shipments of diagnostic materials must be accompanied by an official government letter giving permission for the FADDL to conduct the testing.

Please note that certain disease agents have more than one serotype, subtype, strain, group, etc., and that the listed user fee is per serotype, subtype, strain, group, etc. For example, vesicular stomatitis (VS) has two strains--New Jersey and Indiana; therefore, a complement fixation test for VS would be billed at two times the CF fee.

Foreign Animal Disease Diagnostic Laboratory (FADDL)

The FADDL is a high-level biocontainment laboratory located at the Plum Island Animal Disease Center (Agricultural Research Service). The FADDL personnel have multidisciplinary expertise and the capability of diagnosing many animal diseases foreign to the United States (U.S.). The laboratory offers training in foreign animal disease diagnosis and epidemiology to veterinarians and other animal health personnel.

The Diagnostic Services Section provides laboratory support for suspected foreign animal disease investigations in the U.S., as well as offering reference assistance and confirmatory testing for many foreign countries with regard to foreign animal disease diagnoses. The Diagnostic Services Section also provides safety testing or treatment of biological products, provides pathology support, and performs diagnostic testing on animals to be imported into the U.S. to ensure freedom from foreign animal disease agents.

The Reagent and Vaccine Services Section develops diagnostic procedures, prepares reagents, develops and tests vaccine seed lots for exotic disease agents, and maintains a foreign animal disease agent repository. Reagents are available for a fee upon request for many foreign countries. As the custodian of the North American Foot-and-Mouth Disease (FMD) antigen bank, this section monitors the antigen for purity, potency, and safety, as required by the vaccine bank's commissioners.

METHODS FOR SHIPPING SUSPECT EXOTIC DISEASE MICROORGANISMS TO THE FADDL

1. Place the specimens (for specimen collection instructions, see Sections F and G under NVSL - Ames Diagnostic Testing) in screwcap containers. The screw caps must be fitted with a tight-sealing gasket, and the rim of the tightened cap must be sealed to the container with plastic or other tape or sealing wax. Avoid the use of glass containers.

2. After the primary containers have been sealed and before moving them to an uncontaminated site, decontaminate the exterior surfaces. For vesicular disease agents, use either 1% Virkon-S ® (EPA REG #62432-1-270), 2% lye, 5% acetic acid or 4% sodium carbonate. For all other suspected disease agents, use 1% Virkon-S (EPA REG #62432-1-270), or 1-Stroke Environ ® (EPA REG #1043-26-AB). The surface of the disinfected container should remain wet for 10 minutes before removing the decontaminated container to an uncontaminated area for subsequent packing in uncontaminated packing material.

3. Wrap each primary container in sufficient dry absorbent cotton to absorb the liquid contents in case of breakage. Place the wrapped container in a small waterproof plastic bag and seal to prevent leakage.

4. Place these sealed bags in a small secondary container, and cushion with additional absorbent cotton to prevent jarring of the contents. Place a sufficient quantity of dry sodium carbonate or other approved decontaminant inside the secondary container to ensure inactivation of the disease organism if the primary container and the plastic bag break. Seal the secondary container.

5. Pint- or quart-sized paint cans may be used as secondary containers. Such cans with pressure lids must be watertight when hammered closed.

6. Place the sealed secondary container inside a tertiary container and seal again.

   a. Tertiary containers may be larger-sized versions of the secondary containers listed in item 5.

   b. Whenever known or suspected infectious zoonotic microorganisms or foreign animal disease agents are shipped, this tertiary container must be used.

7. When mailing or shipping on common carriers, place the tertiary container inside a USDA, APHIS insulated box surrounded by a suitable refrigerant, and tape the lid shut. Similar commercially available shipping containers may be used if necessary. Attach appropriate labels, and include copies of pertinent history, clinical and pathological findings, and sample submission forms inside the box.

a. If specimens must be kept frozen, dry ice is generally the only suitable refrigerant. Remember, if dry ice is used, sample containers must be tightly sealed with electrical tape. Shippers must be aware of dry ice restrictions imposed by certain airlines and delivery services, and plan accordingly.

b. Ice packs may be used for cold storage. Frozen "foam ice," "blue ice" picnic packs, or water-frozen sealed containers may be used. Wet ice, even when enclosed in plastic bags, should not be used.

8. For U.S.-origin samples, Emergency Programs is responsible for notifying the FADDL of all information relative to transporting a package. For international shipments, the shipper is responsible for this notification. The FADDL must be informed of the airway bill number as packages cannot be tracked without an airway bill number.

a. Unless packages are being hand-carried, it is recommended that the shipper (for U.S.-origin samples only) use Federal Express* or a delivery service that will deliver directly to the FADDL at Orient Point, NY. If such service is unavailable, the shipper must use the same airline service between connection points whenever possible to minimize problems involved with the transfer of packages of infectious materials between airlines.

b. When airlines are used, the pertinent information for the laboratory includes airline, flight number, estimated time of arrival, airports involved, airway bill number, type of coolant used, and telephone contact.

When shipping U.S.-origin samples by courier, use the address listed below:

USDA, APHIS, FADDL
Federal Express--Hold for Pick-up
579 Edwards Avenue
Calverton, NY 11933
(631) 208-1735

c. For international shipments, a valid USDA Veterinary Permit for Importation and Transportation of Controlled Material and Organisms and Vectors must be used. Contact the FADDL at (631) 323-3256 or 3206 for additional details. The laboratory should be notified of shipments by telephone at the above number or by facsimile at (631) 323-3366.

For international shipments, use address listed below:

U.S. Department of Agriculture
Attn: FADDL Lab Chief
c/o Port Veterinarian, APHIS, VS
230-59 Rockaway Blvd., Suite 101
Jamaica, New York 11413, USA
Phone (718) 553-1727

d. To expedite package pickup, the shipper must give the recipient as much advance notice as possible of the intent to ship.

* ”Use of a company or product name by the Department does not imply approval or recommendation of the product to the exclusion of others which may also be suitable.”

TABLE OF ABBREVIATIONS

AGID = Agar gel immunodiffusion

CELISA = Competitive enzyme-linked immunosorbent assay

CF = Complement fixation

DFA = Direct fluorescent antibody test

ELISA = Enzyme-linked immunosorbent assay

EM = Electron microscopy

FATST = Fluorescent antibody tissue section test

FORMALIN = Formalin (10% buffered)

HI = Hemagglutination-inhibition

HISTO = Histopathology

IDENT = Identification

IFA = Indirect fluorescent antibody

IPT = Immunoperoxidase test

IPTVN = Immunoperoxidase test virus neutralization

LAT = Latex agglutination test

MI = Mycoplasma isolation

MX = Microscopic examination

PCR = Polymerase chain reaction

RT PCR = Realtime reverse transcriptase polymerase chain reaction

SAFE = Safety test

STERIL = Sterilization

VI = Virus isolation

VN = Virus neutralization

NVSL-FADDL DIAGNOSTIC TESTING MANUAL

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For information concerning diagnostic testing at the FADDL, call (631) 323-3256 or 3206.

Foreign Animal Disease Diagnostic Testing

	Procedure	Specimens	Shipping Preservative	User Fee Code	Min. Test Time (Days)	Comments
African horsesickness**						
	CF	Serum	Ice pack	701	2	
	ELISA	Serum	Ice pack	713	1	
	HISTO	Fixed tissue	Formalin	736	2	
	IFA	Serum	Ice pack	717	1	Ten ml minimum
	VI	Whole blood	Ice pack	719	7	Collect at least ten ml from a febrile animal. DO NOT FREEZE.
	VN	Serum	Ice pack	703	4	Nine serotypes, user fee is per serotype
African swine fever**						
	DFA	Tissue	Ice pack	712	1	
	ELISA	Serum	Ice pack	713	1	
	HISTO	Fixed tissue	Formalin	736	2	
	IFA	Serum	Ice pack	717	1	
	PCR	Tissue	Ice pack	736	3	
	VI	Tissue	Ice pack	719	7	
Aino**						
	VI	Whole blood	Ice pack	719	14	Two ml minimum, DO NOT FREEZE.
	VN	Serum	Ice pack	703	4	
Akabane**						
	VI	Whole blood	Ice pack	719	14	Collect at least ten ml from a febrile animal. DO NOT FREEZE.
	VN	Serum	Ice pack	703	3	
Anaplasmosis						
	CARD	Serum	Ice pack	725	1	
Bluetongue**						
	AGID	Serum	Ice pack	711	1	

****THIS IS AN EXOTIC DISEASE. IT MUST BE REPORTED TO THE STATE OR FEDERAL VETERINARIAN BEFORE SHIPMENT.**

	Procedure	Specimens	Shipping Preservative	User Fee Code	Min. Test Time (Days)	Comments
Bluetongue**						
	CELISA	Serum	Ice pack	713	1	
	PCR	Blood	Ice pack	736	4	
	VI	Whole blood	Ice pack	719	20	Collect at least ten ml heparinized blood from a febrile animal. DO NOT FREEZE.
	VN	Serum	Ice pack	703	4	Twenty-four serotypes, some exotic, user fee is per serotype
Bovine ephemeral fever**						
	VI	Whole blood	Ice pack	719	20	
	VN	Serum	Ice pack	703	3	
Bovine herpesvirus 2**						
	EM	Fresh tissue	Ice pack	736	2	
	HISTO	Fixed tissue	Formalin	736	2	
	VI	Fresh tissue	Ice pack	719	10	
	VN	Serum	Ice pack	703	3	
Bovine papular stomatitis						
	EM	Fresh tissue	Ice pack	736	2	
	IFA	Serum	Ice pack	717	1	
Bovine respiratory syncytial virus						
	VN	Serum	Ice pack	703	3	
Bovine viral diarrhea						
	IPTVN	Serum	Ice pack	703	3	
	PCR	Serum, fresh tissue	Ice pack	736	4	Minimum test time for serum is 2-4 days. Minimum test time for virus isolate is 21 days.
	VN	Serum	Ice pack	703	3	
Brucella abortus						
	CARD	Serum	Ice pack	725	1	
	RIVANOL	Serum	Ice pack	899	2	

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	Procedure	Specimens	Shipping Preservative	User Fee Code	Min. Test Time (Days)	Comments
Brucella abortus						
	TUBE	Serum	Ice Pack	729	2	
Calicivirus**						
	IFA	Serum	Ice pack	717	1	
	VI	Tissue	Ice pack	719	14	
	VN	Serum	Ice pack	703	3	Twenty-four serotypes, user fee is per serotype, includes San Miguel sea lion virus
Classical swine fever**						
	ELISA	Serum	Ice pack	713	2	
	FATST	Tonsil	Ice pack	736	1	Hog cholera
	HISTO	Fixed tissue	Formalin	736	2	
	IPT	Serum	Ice pack	727	1	
	IPTVN	Serum	Ice pack	703	3	
	PCR	Fresh tissue	Ice pack	736	2	
	VI	Tissue	Ice pack	719	4	
Contagious agalactia						
	CF	Serum	Ice pack	701	1	Contact laboratory for additional information--(631) 323-3256.
	MI	Various	Ice pack	735	14	Joint fluid, milk, eye swab
	PCR	Fresh tissue	Ice pack	736	3	
Contagious bovine pleuropneumonia**						
	CF	Serum	Ice pack	701	1	Contact laboratory for additional information--(631) 323-3256.
	MI	Various	Ice pack	735	14	Tissue, joint fluid
	PCR	Fresh tissue	Ice pack	736	3	Test time for PCR is 2-3 days after mycoplasma isolation.
Contagious caprine pleuropneumonia**						
	CF	Serum	Ice pack	701	1	
	MI	Various	Ice pack	735	14	Tissue, milk, eye swab in brain-heart infusion or tris buffered-tryptose broth media

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Procedure	Specimens	Shipping Preservative	User Fee Code	Min. Test Time (Days)	Comments
Contagious caprine pleuropneumonia**					
PCR	Fresh tissue	Ice pack	736	3	
Contagious ecthyma					
EM	Fresh tissue, scab	Ice pack	736	2	
VI	Fresh tissue, scab	Ice pack	719	2	Test time can vary from 2-10 days.
Electron microscopy					
EM	Various	Various	736	2	Tissue culture isolates, feces, tissues, fix feces, tissues of FAD-suspect animals in glutaraldehyde or 10% buffered formalin
Epizootic hemorrhagic disease**					
AGID	Serum	Ice pack	711	2	
VN	Serum	Ice pack	703	4	Four serotypes, some exotic, user fee is per type
Foot-and-mouth disease**					
AGID	Serum	Ice pack	711	2	Virus infection associated antigen
CF	Serum	Ice pack	701	1	
ELISA	Serum	Ice pack	713	1	Five ml minimum
ELISA	Various	Ice pack	713	1	Vesicular epithelium or fluid
PCR	Fresh tissue	Ice pack	736	2	
RT PCR	Fresh tissue	Ice pack	736	2	
VI	Probang	Ice pack	720	2	
VI	Various	Ice pack	719	2	Vesicular epithelium or fluid
VN	Serum	Ice pack	703	3	Per type (seven types)
Gamma irradiation					
STERIL	Varies	Varies	722	7	Contact laboratory for details--(631) 323-3256.

****THIS IS AN EXOTIC DISEASE. IT MUST BE REPORTED TO THE STATE OR FEDERAL VETERINARIAN BEFORE SHIPMENT.**

	Procedure	Specimens	Shipping Preservative	User Fee Code	Min. Test Time (Days)	Comments
Getah**						
	VI	Blood	Heparin	719	10	Ten ml heparinized blood, DO NOT FREEZE.
	VN	Serum	Ice pack	703	3	
Heartwater**						
	CULTURE	Whole blood	Ice pack	719	28	Fifty ml heparinized blood, DO NOT FREEZE.
	HISTO	Brain	Formalin	736	2	
	IFA	Serum	Ice pack	717	1	
	MX	Brain smear	Ice pack	736	1	
Ibaraki**						
	VI	Whole blood	Ice pack	719	20	Ten ml minimum, DO NOT FREEZE.
	VN	Serum	Ice pack	703	4	
Japanese encephalitis B**						
	HI	Serum	Ice pack	705	2	
Lumpy skin disease**						
	EM	Lesion	Ice pack	736	1	
	HISTO	Lesion	Formalin	736	2	
	IFA	Serum	Ice pack	717	1	Submission of paired (convalescent) serum samples is recommended.
	VI	Lesion	Ice pack	719	14	
	VN	Serum	Ice pack	703	10	Submission of paired (convalescent) serum samples is recommended.
Malignant catarrhal fever						
	HISTO	Fixed tissue	Formalin	736	2	
	IPT	Serum	Ice pack	727	1	AHV-1 is a FAD (Notify state veterinarian/Federal Veterinarian)
	PCR	Buffy coat - EDTA blood	Ice pack	736	2	

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Procedure	Specimens	Shipping Preservative	User Fee Code	Min. Test Time (Days)	Comments
Malignant catarrhal fever					
PCR	Fresh tissue	Ice pack	736	2	
VN	Serum	Ice pack	703	3	
Parainfluenza 3					
VN	Serum	Ice pack	703	3	
Pestes des petits ruminants**					
DFA	Tissue	Ice pack	712	1	
ELISA	Serum	Ice pack	713	1	Five ml minimum. Submission of paired (convalescent) serum samples is recommended.
HISTO	Fixed tissue	Formalin	736	2	
VI	Blood	Ice pack	719	3	
VN	Serum	Ice pack	703	4	Five ml minimum. Submission of paired (convalescent) serum samples is recommended.
Porcine enterovirus					
PCR	Fresh tissue	Ice pack	736	2	
VI	Fresh tissue	Ice pack	719	10	
VN	Serum	Ice pack	703	3	
Porcine reproductive and respiratory syndrome					
IFA	Serum	Ice pack	717	1	
Pseudorabies					
LAT	Serum	Ice pack	718	1	
Rift Valley fever**					
ELISA	Serum	Ice pack	713	1	
HISTO	Fixed tissue	Formalin	736	2	
VI	Whole blood	Ice pack	719	2	Submit EDTA or heparinized whole blood. DO NOT FREEZE.

****THIS IS AN EXOTIC DISEASE. IT MUST BE REPORTED TO THE STATE OR FEDERAL VETERINARIAN BEFORE SHIPMENT.**

	Procedure	Specimens	Shipping Preservative	User Fee Code	Min. Test Time (Days)	Comments
Rinderpest**						
	DFA	Tissue	Ice pack	712	1	
	ELISA	Serum	Ice pack	713	1	Five ml minimum. Submission of paired (convalescent) serum samples is recommended.
	HISTO	Fixed tissue	Formalin	736	2	
	VI	Whole blood	Ice pack	719	3	Submit EDTA or heparinized blood.
	VN	Serum	Ice pack	703	4	Five ml minimum. Submission of paired (convalescent) serum samples is recommended.
Safety test						
	SAFE	Various	Various	716	21	In vivo safety test of biological materials to rule out selected agents. Contact laboratory for information--(516) 323-2500.
Sheep and goat pox**						
	EM	Lesion	Ice pack	736	1	Biopsy of skin or respiratory lesion
	HISTO	Lesion	Formalin	736	2	Biopsy of skin or respiratory lesion
	VI	Lesion	Ice pack	719	10	Biopsy of skin or respiratory lesion
	VN	Serum	Ice pack	703	5	Submission of paired (convalescent) serum samples is recommended.
Swine vesicular disease**						
	ELISA	Fresh tissue	Ice pack	701	1	
	ELISA	Various	Ice pack	713	1	Vesicular epithelium or fluid
	PCR	Fresh tissue	Ice pack	736	3	
	VI	Various	Ice pack	719	2	Vesicular epithelium or fluid
	VN	Serum	Ice pack	703	3	Five ml minimum. Submission of paired (convalescent) serum samples is recommended.

****THIS IS AN EXOTIC DISEASE. IT MUST BE REPORTED TO THE STATE OR FEDERAL VETERINARIAN BEFORE SHIPMENT.**

	Procedure	Specimens	Shipping Preservative	User Fee Code	Min. Test Time (Days)	Comments
Trypanosomiasis**						
	IFA	Serum	Ice pack	717	1	Trypanosoma vivax
	MX	Blood smear	Ice pack	736	1	
Vesicular exanthema of swine						
	IFA	Serum	Ice pack	717	1	
	VI	Tissue	Ice pack	719	14	
	VN	Serum	Ice pack	703	3	
Vesicular stomatitis**						
	CF	Fresh tissue	Ice pack	701	1	
	CF	Serum	Ice pack	701	1	Five serotypes, some exotic
	ELISA	Serum	Ice pack	713	1	
	ELISA	Various	Ice pack	713	1	Vesicular epithelium or fluid
	EM	Fresh tissue	Ice pack	736	2	
	PCR	Fresh tissue	Ice pack	736	3	
	VI	Various	Ice pack	719	2	Vesicular epithelium or fluid
	VN	Serum	Ice pack	703	3	Five serotypes, some exotic. User fee is per serotype.
Viral hemorrhagic disease of rabbits**						
	ELISA	Fresh tissue	Ice pack	701	1	
	ELISA	Serum	Ice pack	713	1	
	HI	Serum	Ice pack	705	1	
	HISTO	Fixed tissue	Formalin	736	2	
Viral identification						
	IDENT	Isolates	Ice pack	Call		Contact laboratory for details--(631) 323-3256.

****THIS IS AN EXOTIC DISEASE. IT MUST BE REPORTED TO THE STATE OR FEDERAL VETERINARIAN BEFORE SHIPMENT.**

REAGENTS FROM THE NVSL - FOREIGN ANIMAL DISEASE DIAGNOSTIC LABORATORY

The Foreign Animal Disease Diagnostic Laboratory (FADDL) produces a wide variety of reagents used in the diagnosis of African swine fever, bluetongue (exotic strains), bovine ephemeral fever, bovine herpes mammillitis, classical swine fever (hog cholera), contagious agalactia of sheep and goats, contagious bovine pleuropneumonia, contagious caprine pleuropneumonia, foot-and-mouth disease, lumpy skin disease, peste des petits ruminants, Rift Valley fever, rinderpest, sheep and goat pox, swine vesicular disease, vesicular exanthema of swine, vesicular stomatitis, and viral hemorrhagic disease of rabbits. As many of the reagents are of restricted usage in the United States, any exemption requires USDA authorization and permit. However, these reagents are available for a fee upon request to other countries. For specific information concerning FADDL reagents, contact the Head, Reagents and Vaccine Services Section by phone at (631) 323-3256 or 3206 or by facsimile at (631) 323-3366.

Foreign Animal Disease Diagnostic Laboratory Reagents

Reagent Name	Reagent Code	Amount/ Vial	Tests/ Vial	User Fee Code	Reagent Description
Bovine antiserum, any agent		1.0 ml	Varies	1200	USDA authorization and permit required for distribution in the US. Sera are used for research purposes or as positive controls for a variety of serologic tests.
Caprine antiserum, any agent		1.0 ml	Varies	1201	USDA authorization and permit required for distribution in the US. Sera are used for research purposes or as positive controls for a variety of serologic tests.
Cell culture agent/microorganism		1.0 ml	Varies	1202	USDA authorization and permit required for distribution in the US. Antigens/microorganisms are to be used for research or diagnostic purposes.
Equine antiserum, any agent		1.0 ml	Varies	1203	USDA authorization and permit required for distribution in the US. Sera are used for research purposes or as positive controls for a variety of serologic tests.
Fluorescent antibody conjugate		1.0 ml	Varies	1204	USDA authorization and permit required for distribution in the US. Conjugate is used to detect viral antigens in cell cultures or tissue sections.
Monoclonal antibody		1.0 ml	Varies	1206	USDA authorization and permit required for distribution in the US. Monoclonal antibodies may be used to identify viral antigens or in blocking ELISAs.
Other antiserum, any agent (guinea pig)		1.0 ml	Varies	1205	USDA authorization and permit required for distribution in the US. Sera are used for research purposes or as positive controls for a variety of serologic tests.
Ovine antiserum, any agent		1.0 ml	Varies	1207	USDA authorization and permit required for distribution in the US. Sera are used for research purposes or as positive controls for a variety of serologic tests.
Porcine antiserum, any agent		1.0 ml	Varies	1208	USDA authorization and permit required for distribution in the US. Sera are used for research purposes or as positive controls for a variety of serologic tests.
Rabbit antiserum, any agent		1.0 ml	Varies	1209	USDA authorization and permit required for distribution in the US. Sera are used for research purposes or as positive controls for a variety of serologic tests.

*** No charge if used as part of an USDA control program**