

**MOLECULAR DIAGNOSIS**

Send specimen with cold pack unless otherwise noted.  
Routine MOLECULAR SECTION tests deadline is M-F by 4pm.

Tests	Sample/Submission	Container(s)	Time	Special Comments	
<b>Avian</b>					
Influenza virus H5 and H7 PCR	Tracheal, cloacal, oropharyngeal swab, or tissue: Lung, trachea, intestine	Swab: BHI Tissue: SC	2 days	Confirmation, required at NVSL, one to four weeks	
Avian paramyxovirus-1 (Newcastle disease) PCR	Tracheal, cloacal, oropharyngeal, or environmental swab, tissue: Trachea, lung, spleen.	Swab: BHI Tissue: WP/SC	2 days	Confirmation, required at NVSL, one to four weeks	
<b>Bovine</b>					
Johnes PCR	Feces, ileocecal loop	SC	2 days		
Foot and mouth disease virus PCR	Whole blood (fever), vesicular fluid, epithelia overlying blisters, esophageal- pharyngeal fluid	Epithelial tissue/ fluid: VTM Blood: PT	2-3 days	Confirmation required at NVSL- FADDL, Plum Island, NY	
Bovine viral diarrhea PCR	Whole blood or tissue: lung, lymphoid, kidney, thyroid, brain, liver.	Blood-PT, Tissue-SC	2-3 days		
<b>Porcine</b>					
Classical swine fever	Whole blood of febrile animal, or tonsil tissue	Tonsil: WP/SC Blood: PT	2-3 days	Confirmation required at FADDL, Plum Island, NY	
<b>Canine</b>					
Canine influenza	Culturette, Swab, tissue: lung	Swab: BHI/VTM Tissue: SC	2 days		
<b>Caprine/Ovine</b>					
Corynebacterium pseudotuberculosis PCR	Swab or aspirate of skin or lymph node abscess	ATM/NC	2 days	Validation in progress	
<b>Equine</b>					
Equine herpes virus-1 PCR (genotyping)	Nasal swab, tissue: placenta-fetus, lung, nasal secretions, lymph nodes, thymus, brain whole blood	Nasal swab and or tissue: BHI, saline or VTM Blood: PT	2 days	Test detects and differentiates respiratory and neurological strains of EHV-1	
Streptococcus equi subspecies PCR	Nasal swab/wash, pharyngeal swab, tracheal wash, abscess swab, guttural swab/wash	Swab: Moistened cotton or Dacron swab Washes: SC	2 days	Test detects and differentiates S. equi subsp equi (strangles) and S. equi subsp zooepidemicus (respiratory tract infection)	
Eastern equine encephalitis PCR	<b>Horse-</b> Whole blood, cerebrospinal fluid and or fresh or frozen brain tissue, preferably brain stem or medulla. <b>Birds-</b> Kidney, brain, liver, heart, spleen.	Fluid and or Tissue, SC, Blood: PT	2-3 days		
Potomac horse fever PCR	Whole Blood, Cecal/colonic mucosal scrapping	Blood: PT, Scraping: SC	2-3 days		
West Nile encephalitis PCR	<b>Horse-</b> Whole blood, cerebrospinal fluid, fresh or frozen brain tissue, preferably brain stem or medulla. <b>Birds-</b> Kidney, brain, liver, heart, spleen.	Fluid and or Tissue, SC, Blood: PT	2-3 days		
<b>All species</b>					
influenza type A	Culturette, Swab, tissue: lung	Swab: BHI, VTM Tissue: SC	2 days		

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CTM= Chlamydia transport media DB=Doubled bagged

### VIROLOGY

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Avian					
Avian influenza (AI) virus isolation	Swab in BHI broth, Tissues: lung	Swab: BHI, Tissues: SC	7-28 days	Test set on Thursday. Notify us prior to submission.	
Chlamydia	<b>Birds:</b> whole blood sample in conjunction with a cloacal and/or throat swab. Tissue: liver, spleen, or kidney <b>Environmental testing</b> swabs of aviaries, countertops, fans, air-filters, nest-boxes <b>Other species:</b> Conjunctival swab	Blood: PT Tissue: SC, Swabs: VTM, CTM	2-3 days		
New Castle disease virus (NDV) isolation	Oropharyngeal, tracheal, cloacal swab, Tissues: Trachea, lung, spleen	Swab: BHI, CTM Tissues: SC	7-28 days	Test set on Thursday. Notify u prior to submission.	
Bovine					
Bovine herpes virus-1 (IBR) isolation	Whole blood, semen, fresh tissue: fetal tissue, placenta, lung, trachea Swabs. Conjunctival, nasal, and rectal smears.	Blood: PT, Swab: VTM Tissue: SC	14-21 days		
Bovine respiratory syncytial virus (BRSV) IFA	1 ml serum	RTT	1-2 days		
Bovine herpes virus-1 serum neutralization (IBR) (SN)	1 ml serum	RTT	3-6 days	Test is set on Thursdays.	
Bovine herpes virus-1 (IBR) FA	Fresh tissue: trachea, lung, liver, placenta, fetal lung	SC	2 days		
Bovine para- influenza-3 virus hem agglutination inhibition(HI)	1 ml serum	RTT	2-4 days		
Bovine parainfluenza-3 virus FA	Fresh lung	SC	2 days		
Bovine parvo virus FA	Fresh tissue: ileum, jejunum	SC	2 days		
Bovine respiratory syncytial virus FA	Fresh tissue: lung, nasal smear	SC	2 days		
Bovine rota virus FA	Fresh tissue: small intestine	SC	2 days		
Bovine viral diarrhea (BVD) virus isolation	<b>Cattle &amp; Camelids</b> Whole blood, serum (2 ml), Tissues: lung, lymphoid, kidney, spleen, thyroid, brain, liver. GI tract (Peyer's patches, lymphoid, mesenteric lymph nodes), spleen and thymus from aborted fetuses.	Blood: PT Serum: RTT Tissue: SC	14-21 days		
Bovine viral diarrhea (BVD) serum neutralization	1 ml serum	RTT	3-6 days	Test is set on Thursdays.	
Bovine viral diarrhea (BVD) FA	Fresh tissue: small intestine, kidney, lung, liver, lymph node, fetal tissues	SC	2 days		
Bovine enteric panel					
BVDSN/johnes /IBR SN/ELISA/E.coli/Clostridia/ Campylobacter/Coccidia/ Parasites	1 ml serum for BVD johnes/ 3 gm feces for others	Serum: RTT, Tissue: WP, SC Feces: DB	5-6 days	See bacteriology section or call for details on culture	
Bovine abortion panel					
BVD SN, IBR SN, Lepto MAT, Brucellosis	1 ml serum	RTT	6-10 days		
Bovine respiratory panel					
IBR SN, para influenza-3 HI, BVD SN	1 ml serum	RTT	5-6 days		

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<b>Canine</b>					
Canine influenza HI	1 ml serum	RTT	2-4 days		
<b>Caprine/Ovine</b>					
Blue tongue FA	Fresh spleen	SC	2 days		
<b>Equine</b>					
Equine adenovirus FA	Fresh lung, spleen, lymph nodes	SC	2 days		
Equine encephalitis (Eastern) ELISA	1 ml serum	RTT	1-2 days		
Equine encephalitis (Eastern) HI	1 ml serum	RTT	2-4 days		
Equine encephalitis (Western) HI	1 ml serum	RTT	2-4 days		
Equine herpes virus-1 isolation	Whole blood, nasal swab, tracheal wash. Tissues: lung, liver, placenta, adrenal	Blood: PT Tissues: WP, SC	14-21 days		
Equine herpes virus-1 SN	1 ml serum	RTT	3-6 days	Test is set only on Tuesday and Friday.	
Equine herpes virus-1 FA	Fresh lung, liver, placenta, spinal cord, adrenal	WP, SC	2 days		
Equine influenza virus isolation	Nasal swab	BHI	14-21 days	Test is set on Thurs. Lab should be notified of submission in advance if possible.	
Equine influenza HI (Includes Miami, Prague, Kentucky and Alaskan strains)	1 ml serum	RTT	2-4 days		
Equine viral arteritis (EVA) virus isolation	Whole blood, semen, pharyngeal swab, tissue	Blood: PT, Semen: semen straw	14-21 days		
Equine herpes -1 SN/ equine arteritis SN / equine influenza HI	1 ml serum	RTT	3-6 days		
West Nile encephalitis virus ELISA – IgM and IgG	1 ml serum	RTT	1-2 days		
Equine viral arteritis (EVA) SN	1 ml serum	RTT	3-6 days	Friday and Tuesday.	
<b>Equine abortion panel</b>					
EHV-1 SN / EVA SN / MAT Paired Serum	1 ml serum	RTT	3-6 days	See bacteriology for MAT	
<b>Equine enteric panel</b>					
Potomac horse fever IFA / Salmonella/E.coli/Clostridia	1 ml serum for Potomac horse fever	RTT	1-2 days PHF	See bacteriology for Salmonella/E.coli/Clostridia	
<b>Equine neurological panel</b>					
Equine herpes -1 SN/West Nile ELISA/ Eastern encephalitis ELISA	1 ml serum	RTT	3-6 days		
<b>Equine respiratory panel</b>					
EHV-1, EVA/SN, equine influenza	Lung, placenta, semen, fetal tissues, lymph node	WP, SC	3-6 days		
West Nile encephalitis virus HI	1 ml serum	RTT	2-4 days		
<b>Porcine</b>					
Porcine adenovirus FA	Fresh lung, intestine, kidney, brain	WP, SC	2 days		
Porcine parvovirus FA	Fresh jejunum, ileum	WP, SC	2 days		
Porcine reovirus FA	Fresh lung	WP, SC	2 days		
Porcine resp. and repro. syndrome (PRRS) IFA	1 ml serum	RTT	1-2 day		
Porcine rotavirus FA	Fresh intestine	WP, SC	2 days		
Pseudorabies virus latex agglutination	1 ml serum	RTT	1 day		
Pseudorabies virus FA	Fresh brain, spleen, lymph node	WP, SC	2 days		
Swine influenza HI	1 ml serum	RTT	2-4 days		
Swine influenza FA	Fresh lung	WP, SC	2 days		
Transmissible gastroenteritis (TGE) FA	Fresh jejunum, lung	WP, SC	2 days		
<b>Tests for other micro-organisms</b>					

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Chlamydia psittaci FA	Fresh liver, spleen, kidney	WP, SC	2 days		
Johnes ELISA	1 ml serum	RTT	1-2 days		
Leptospira FA	Kidney, heart, placenta	WP, SC	2 days		
Lyme ELISA & Western blot (horse and dog)	1 ml serum	RTT	2-4 days		
Potomac horse fever IFA	1 ml serum	RTT	1-2 days		

<b>Rabies</b>	<b>Brain</b>			<b>Contact NJDA for submission and testing details before submitting sample</b>	
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**Serology**

Send specimen chilled (with cold pack) unless otherwise noted under Special Comments  
For Serology tests, the deadline is M-Th by 2pm unless otherwise noted under Special Comments

Tests	Sample/Submission	Container(s)	Time	Special Comments	
<b>Avian</b>					
Avian influenza (AI) AGID	1ml whole blood or 1/2 ml serum	RTT	1-2 days		
Mycoplasma Gallisepticum and Synoviae	1ml whole blood or 1/2 ml serum	RTT	1 day		
Pullorum microtiter	1ml whole blood or 1/2 ml serum	RTT	1-2 days		
<b>Bovine</b>					
Blue Tongue AGID and Epizootic	3 ml whole blood or 1/2 ml serum	RTT	1-2 days		
Bovine Leukemia AGID	3 ml whole blood or 1/2 ml serum	RTT	1-2 days		
Brucellosis Card, Tube, BAPA, Rivanol	5 ml whole blood or 2 ml serum	RTT	1 day		
<b>Canine</b>					
Canine influenza AGID HI	1 ml whole blood or 1/2 ml serum	RTT	1-2 days		
Parasite Fecal Floatation	2 grams	WP, SC	1-2 days		
<b>Caprine/Ovine</b>					
Caprine Arthritis Encephalitis AGID	3 ml whole blood or 1/2 ml serum	RTT	1-2 days		
Blue Tongue AGID and Epizootic	2ml whole blood or 1/2 ml serum	RTT	1-2 days		
Brucellosis Card, Tube, BAPA, Rivanol	5 ml whole blood or 2 ml serum	RTT	1 day		
AGID Ovine Progressive Pneumonia	3 ml whole blood or 1/2 ml serum	RTT	1-2 days		
<b>Equine</b>					
Brucellosis Card and Tube	5 ml whole blood or 2 ml serum	RTT	1 to 2 days		
Equine Infectious Anemia AGID	3 ml whole blood or 1/2 ml serum	RTT	1 day		
Equine Infectious Anemia Elisa	3 ml whole blood or 1/2 ml serum	RTT	Same day!		
<b>Porcine</b>					
Brucellosis Card, Tube, BAPA, Rivanol	5 ml whole blood or 2 ml serum	RTT	1 day		
<b>Camelids</b>					
Blue Tongue AGID and Epizootic	2ml whole blood or 1/2 ml serum	RTT	1-2 days		
Brucellosis Card, Tube, BAPA, Rivanol	5 ml whole blood or 2 ml serum	RTT	1 day		
Parasite Fecal Floatation All species	2 grams	WP, SC	1-2 days	No need to chill	

**Pathology**

Send specimen chilled (with cold pack), preferred whole carcass. Special Comments  
For pathology tests, the deadline is M-F by 2:30 PM. Carcasses or tissues received later will be processed the next day

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Tests	Sample/Submission	Container(s)	Time	Special Comments	
Histopathology/biopsy ( <b>Up to 3 tissues</b> )	tissue in 10% formalin	Suitable sealed container (plastic), 10% buffered formalin	10 days	3 representative samples excised from site including normal tissue	
Biopsy: Histopathology ( <b>+ 3 tissues</b> )					
Necropsy Bottle: Histopathology	Tissues: heart, lung, kidney, liver, spleen, pancreas, stomach, intestine, bladder, brain <b>Abortion</b> . fetal lung stomach content, placenta	Suitable sealed container (plastic) 10% buffered formalin	10 days	See appendix 1	
Special stains	Taken from original tissue block		3-5 days	Client will be consulted if pathologist deems procedure will help diagnosis	
Necropsy/ <b>Small animal carcass</b> (up to 80 lbs) Includes aerobic culture/histo	Whole carcass	Cooled/ice packs <b>DB</b>	2-3 days		
Necropsy/ <b>Large animal carcass</b> (up to 300 lbs) Includes aerobic culture/histo	Whole carcass		2-3 days		
Necropsy/ <b>Avian/poultry</b> (Up to 5 birds) Includes aerobic culture/histo	Whole carcass	Cooled/ ice packs <b>DB</b>	2-3 days	If respiratory signs/ mycoplasma M. synoviae and gallisepticum recommended submit serum (see serology)	
Necropsy/Avian/poultry (up to 5 birds) Bacteriology/ mycoplasma and AI/END/histo	Whole carcass	Cooled/ ice packs <b>DB</b>	2-3 days		
Necropsy/ <b>Avian pet birds</b> (up to 5 birds) aerobic culture and histo	Whole carcass	Cooled/ ice packs <b>DB</b>	2-3 days		
Brain removal only	Whole head or carcass	Cooled, <b>DB</b>	2-3 days		
Field necropsy	NA	NA	2-3 days		
Field sample collection	NA	NA	2-3 days		
Carcass disposal	carcass		NA	NA	

### **BACTERIOLOGY**

Send specimen chilled (with cold pack) unless otherwise noted under Special Comments  
For BACTERIOLOGY tests, the deadline is M-F by 4pm unless otherwise noted under Special Comments

Tests all species	Sample/Submission	Container(s)	Time	Special Comments	
Abortion bacteriology Panel					
Actinomyces pyogenes, Bacillus, Streptococcus spp. Brucella . Haemophilus somnus Leptospira spp. L. hardjo (hardjo-bovis) and L. pomona. Listeria monocytogenes, campylobacter, manheimia.	Lung, placenta, stomach contents	Swab <b>AMTC</b> or tissue <b>SC</b>	5 days		
Acid fast stain	Smear or slide, swab from lesion or rectal mucosal scraping	Slide holder Culturette	1 day		
Aerobic culture	Swab, tissue	<b>AMTC, SC</b>	2-5 days		
Anaerobic culture	Swab Tissue 2x2x2 Fluid aspirates 3ml	Anaerobic transport <b>SC</b> , Vacutainer	8 days	Contact bacteriology section	

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Anthrax screen	Blood Swabs from bloody nose, mouth rectum Spleen Contaminated animal hide	YT, Sealed container Sealed container	5 days	Contact bacteriology section	
Antibiotic sensitivity Kirby-Bauer	Swab from lesion Bacterial isolates	Transport media Slant or transport media	2-4 days		
Campylobacter fetus ss fetus	Aborted fetus, abomasal fluid, lung placenta	SC	6 days	Contact bacteriology section	
Campylobacter jejuni	Feces, tied loop of intestine	SC	3 days	Contact bacteriology section	
Clostridium perfringens screen	Feces, intestine	SC	4 days		
Contagious Metritis	Mare: swab from fossa sinus (cervix, uterus optional) Stallion: swab from fossa glандis, prepuce and urethra	ATMC	7 days	Must arrive with in 48 hours on ice	
Direct fungal smear	Scraping, hair	SC	1 day		
Enteric bacteriology Panel					
Salmonella, E. coli, Clostridium, (Types A, B, C, and E), Johnes	Post mortem samples, ligated intestinal loop, mesenteric lymph node, Live animals: feces	Tissue: SC Swab: ATMC	3-4 days 7 days for DSE	Contact bacteriology section	
E.coli O157	Feces, ligated loop of intestine	Tissue: SC Swab: ATMC	3-5 days	Contact bacteriology section	
Gram stain	heat fixed slide	Slide mailer	1 day		
Fungal culture	Hair, skin scraping	SC	1-4 weeks		
Johnes solid culture	Feces – 4 grams	Wide mouth tube	16 weeks	Contact lab for herd testing	
Johnes liquid culture	Fecal 4 grams	Wide mouth tube	6 weeks	Contact lab for testing	
Leptospira MAT Paired serum	2ml serum	RTT	2 days		
Lepto Mat single serum	2ml serum	RTT	2 days		
Listeria	Brain Placenta, fetus, lung,, abomasal fluid, silage	SC	7 weeks		
Mastitis including mycoplasma	Milk quarter or bulk tank	SC	2-4 days 7 days myco.		
Mastitis excluding mycoplasma	Milk quarter or bulk	SC	2-4 days		
Mycoplasma bovine sample	Uterine, cervical or vaginal mucous milk	Tissue, milk: SC Swab: ATMC	7 d		
Necropsy culture	Tissue	WP, SC	2-5d	5 day Salmonella enrichment	
Reproductive aerobic culture	Uterine, cervical or vaginal mucus	Tissue,; SC Swab: ATMC	2-4d		
Respiratory bacteriology panel/ Large animal	Tracheal wash, lung	Tissue: SC Swab: ATMC	2-4 days		
Mannheimia haemolytica, Pasteurella multocida, Haemophilus somnus					
Respiratory bacteriology panel/ small animal	Tracheal wash, lung	Tissue: SC Swab: ATMC	2-4 days		
Pseudomonas sp , Escherichia coli , Klebsiella pneumoniae					
Salmonella culture	Fresh feces, ligated ileum, jejunum, or mesenteric, LN environmental swab Feed	Tissue: SC Swab: ATMC	3-4 days	5 day enrichment	
Yersinia	Fresh feces, ileum, jejunum, mesenteric LN	Tissue: SC Swab: ATMC	2-4d		

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