

**Respiratory disease** – Bovine respiratory disease is often caused by multiple factors including viral and bacterial pathogens and testing for multiple pathogens may be warranted. Testing samples from acutely sick and untreated cattle provide the best results. Testing animals sick longer than a week or have been treated with multiple antibiotics may not identify the primary pathogens. A recommended list of initial testing for common pathogens is provided. A list of additional tests for less common pathogens, for other test methods, or for referral testing is also provided.

**Recommended initial testing:**

Test Name	Recommended Samples	In-state Price*	Details	Lab/Section/Test Schedule	Turn Around Time
Necropsy	Freshly dead animal	\$50.00 + disposal fee of \$25/250 lbs, up to \$100	Examining untreated and more acutely affected will provide most useful results. A freshly dead animal is extremely important to the value of the necropsy and additional testing. Additional testing is determined by veterinarian and tests done at NCVDLs are included in necropsy fee.	All/Necropsy/M-F	3-21 days
Aerobic culture (antibiotic susceptibility upon request)	Lung, nasopharyngeal swab, BAL, TTW	\$17.00/sample	<i>M. haemolytica</i> , <i>Histophilus somni</i> , <i>Pasteurella</i> sp., <i>Trueperella pyogenes</i> can be isolated from aerobic culture. Sample the margin between normal and abnormal. Pieces of tissue at least 1" thick and in individual and labeled containers.	Rollins/Bacti/M-F	3-5 days
<i>Mycoplasma</i> sp. culture	Lung, TTW, nasal swab	\$14.00/sample	Use Aimes transport media w/o charcoal for swabs. Referral is necessary to speciate <i>Mycoplasma</i> . Pieces of tissue at least 1" thick and in individual and labeled containers.	Rollins/Bacti/M-F	Up to 21 days
Viral isolation (VI)	Lung, nasopharyngeal swab, BAL, TTW	\$30.00/test	Isolation of respiratory viruses: infectious bovine rhinotracheitis, parainfluenza-3, bovine viral diarrhea virus. Request IBR, PI3, BVD VI.	Rollins/Viro/M-F	2-4 weeks
Histopathology/Field necropsy	Formalin fixed lung, trachea, other tissues as needed.	\$45 for the first 4 slides. \$5 for every additional slide.	Sample multiple lobes including margin between abnormal and normal. Adequate formalin fixation (10:1 – formalin:tissue) is critical. Tissue sections < ¼" thick. Fresh tissue testing is also recommended, see diagnostic plan list.	Rollins/Histo/M-F	2-3 days
Bovine viral diarrhea virus (BVDV) testing	See BVDV Testing Plan				

\* Out-of-state submissions are charged at two times the in-state rate. See fee schedule for details.

A \$2.00 accession fee is applied to each case.

**Bovine Respiratory Additional Testing:**

Test Name	Recommended Samples	In-state Price*	Details	Lab/Section/Test Schedule	Turn Around Time
Infectious Bovine Rhinotracheitis virus (IBR) virus neutralization (VN)	Serum (minimum 1 ml)	\$6.75	Detects antibodies to IBR virus. Provide vaccine history for additional interpretation.	Rollins/Viro/M,F	3-5 days
Bovine Parainfluenza 3 virus (PI3) virus neutralization (VN)	Serum (minimum 1 ml)	\$6.75	Detects antibodies to PI3 virus. Provide vaccine history for additional interpretation.	Rollins/Virology/M,F	3-5 days
Bovine Respiratory Syncytial Virus (BRSV) immunohistochemistry (IHC)	Formalin fixed lung, tissue block, slide	\$45.00 for 1 slide, \$25.00 for each additional slide.	Detects BRS viral particles in formalin fixed lung. Useful for differentiating exposure and disease.	Rollins/IHC/T, Th	2-4 days
Bovine Respiratory Syncytial Virus (BRSV) rtPCR <i>referral</i>	nasopharyngeal swab, nasal swab, 1-2 mL TTW, 1-2 mL BAL, 1 gram fresh or frozen lung or trachea.	\$25.00, \$7.00 accession fee, and \$20 for shipping	<i>Referral</i> Detects viral nucleic acids in sample.	Texas Veterinary Medical Diagnostic Laboratory	2-6 days
Respiratory corona virus rtPCR <i>referral</i>	nasopharyngeal swab, nasal swab, 1-2 mL TTW, 1-2 mL BAL, 1 gram fresh or frozen lung or trachea.	\$30.00, \$7.00 accession fee, and \$20 for shipping	<i>Referral</i> Detects viral nucleic acids in sample.	Texas Veterinary Medical Diagnostic Laboratory	2-6 days
Influenza D rtPCR <i>referral</i>	nasopharyngeal swab, 0.5 mL BAL, 0.5 mL TTW 0.5 - 1 gram fresh trachea or lung.	\$25.00, \$7.00 accession fee, and \$20 for shipping	<i>Referral</i> Detects viral nucleic acids in sample.	Texas Veterinary Medical Diagnostic Laboratory	2-6 days
Influenza A Immunohistochemistry (IHC)	Formalin fixed lung, tissue block, slide	\$45.00 for 1 slide, \$25.00 for each additional slide.	This primary antibody has been validated for multiple type A influenza strains including H7N7, H5N1, H7N3, H7N2, H3N8, H3N2, H1N1 and H1N2. Useful for differentiating exposure and disease.	Rollins/IHC/T,Th	2-4 days

\* Out-of-state submissions are charged at two times the in-state rate. See fee schedule for details.

A \$2.00 accession fee is applied to each case.