

# PORCINE DIAGNOSTIC PLANS/PANELS



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The following diagnostic plans have been developed primarily as an **educational** tool to assist the veterinarian in designing a complete, although not exhaustive, diagnostic strategy. To encourage veterinarians to select only the tests that are deemed clinically appropriate in each situation, the price of the diagnostic plan is not discounted from the sum of the individual test costs. **Superscript numbers match the individual tests to the sample needed.** For the test groupings labeled as panels, there may be a discounted price versus the costs of the individual tests. Diagnostic plans and panels can be requested by writing the complete name as the test request. If appropriate samples are included all tests will be performed.

DIAGNOSTIC PLAN/PANEL	TESTS PERFORMED	PRICES	SAMPLES NEEDED
<p><b>Porcine Abortion Fetal Tissue Diagnostic Plan</b></p> <p><i>Please note that oral fluid makes a great sample for monitoring certain circulating pathogens in swine populations such as PRRSV, PCV2, Mycoplasma pneumonia and SIV. More information on collecting, shipping and testing oral fluid is available through <a href="http://lowaStateUniversity">lowa State University</a>.</i></p>	<p>(3) <a href="#">Aerobic bacterial cultures</a><sup>1</sup> Listeria included (1 sensitivity included); <a href="#">Porcine Circovirus type 2 (PCV2) FA</a><sup>2</sup>; <a href="#">Porcine Parvovirus FA</a><sup>3</sup>; <a href="#">Porcine Reproductive and Respiratory Syndrome Virus FA (PRRSV)</a><sup>4</sup>; <a href="#">Histopathology</a>; <a href="#">Field Necropsy Surcharge</a><sup>5</sup>; (2) <a href="#">Leptospira PCRs</a><sup>6</sup>; <a href="#">Virus isolation</a><sup>7</sup></p> <p>For cases with mummified fetuses you may also want to consider *<a href="#">Porcine Parvovirus HI</a> and *<a href="#">Porcine Circovirus-2 IFA</a> on fetal heart blood. For comprehensive rule out of *<a href="#">PRRSV</a>, the PCR is recommended on lung and/or thoracic fluid. If abortion is suspected to be related to ventilation then carbon monoxide testing on heart blood in an EDTA tube or a red top or thoracic fluid is recommended.</p>	<p>\$ 448.50 per fetus</p> <p>Testing may qualify for <a href="#">N.Y State contract</a> case subsidy.</p>	<p><b>Fresh tissue</b><sup>1,2,3,4,6,7</sup>: lung, thoracic fluid, placenta, stomach contents, kidney, liver, heart, spleen, lymph nodes, adrenal, skin, intestine, heart blood in sterile red top tube AND <b>Formalin fixed tissue</b><sup>5</sup>: placenta, liver, lung, brain, adrenal, heart, thymus, small intestine, kidney, fetal skin, and umbilicus. <b>SHIP FRESH TISSUE CHILLED AND PROTECT FIXED TISSUE FROM FREEZING.</b></p>
<p><b>Porcine Sow Abortion Serology Diagnostic Plan</b></p> <p><i>(It is recommended to perform the porcine abortion fetal tissue diagnostic plan in addition to this plan)</i></p> <p><i>Please note that oral fluid makes a great sample for monitoring</i></p>	<p><a href="#">Porcine Reproductive and Respiratory Syndrome ELISA</a>*<sup>1</sup>; <a href="#">Porcine Parvovirus HI</a>*<sup>2</sup>; <a href="#">Porcine Reproductive and Respiratory Syndrome PCR</a>*<sup>3</sup>; <a href="#">Leptospira MAT, 7 serovars</a><sup>4</sup>; <a href="#">Porcine Circovirus type 2 PCR</a>*<sup>5</sup>; <a href="#">Selenium</a><sup>6</sup></p> <p>For cases with mummified fetuses you may also want to do a * <a href="#">Porcine Circovirus-2 IFA</a> on sow's serum.</p>	<p>\$199.00 single \$256.00 paired (only 1 selenium, PCV-2 PCR and PRRSV PCR)</p>	<p><b>Maternal serum</b><sup>1,2,3,4,5</sup> (separated) and <b>maternal EDTA whole blood</b><sup>6</sup> (LTT). Serum should be collected from additional sick cohort sows for PCR for PCV2 and PRRSV <b>SHIP CHILLED</b>. When acute and convalescent samples are/will be collected, for most serology assays they should always be tested in parallel, and paired results interpreted. If acute samples are submitted alone please indicated if all tests should be performed. If second, convalescent samples are later submitted, tests on both samples will be run in parallel and fees for both samples will be charged. To avoid testing acute samples twice, hold and submit with convalescent samples. If convalescent samples will not be collected, or when infectious abortion is strongly suspected due to history, immediate testing of acute sample may be warranted.</p>

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<p><i>certain circulating pathogens in swine populations such as PRRSV, PCV2, Mycoplasma pneumonia and SIV. More information on collecting, shipping and testing oral fluid is available through <a href="#">Iowa State University</a>.</i></p>		<p>Testing may qualify for <a href="#">N.Y State contract</a> case subsidy.</p>	
<p><b>Porcine Diarrhea, Nursing Pigs Diagnostic Plan</b></p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p><b>PLEASE NOTE THAT ACCURATE DIAGNOSIS OF DIARRHEA IN NURSING PIGS USUALLY REQUIRES SUBMISSION OF TISSUES.</b></p> <p><i>Results of tests on feces or fecal swabs only, must be evaluated with consideration of clinical signs. Accurate diagnosis requires the detection of the agent(s) as well as compatible histologic lesions from post mortem samples.</i></p> </div> <p><i>Please note that oral fluid makes a great sample for monitoring certain circulating pathogens in swine populations such as PRRSV, PCV2, Mycoplasma pneumonia and SIV. More information on collecting, shipping and testing oral fluid is available through <a href="#">Iowa State University</a>.</i></p>	<p><b>Ante mortem tests:</b> <a href="#">Aerobic bacterial culture</a><sup>1</sup> (1 sensitivity included); <a href="#">Alpha Coronavirus (TGEV) PCR</a><sup>2</sup>; <a href="#">Anaerobic bacterial culture</a><sup>3</sup>; <a href="#">Clostridium difficile Toxins (A/B)</a><sup>4</sup>; <a href="#">Clostridium perfringens Enterotoxin</a><sup>5</sup>; <a href="#">Fecal quantitative</a><sup>6</sup> if ≥ 3 days old); <a href="#">Porcine Epidemic Diarrhea Virus (PEDV) PCR</a><sup>*7</sup>; <a href="#">Porcine Reproductive and Respiratory Syndrome PCR</a><sup>*8</sup>; <a href="#">Rotavirus Antigen Detection, Group A</a><sup>9</sup>; <a href="#">Salmonella culture</a><sup>10</sup>; <a href="#">Porcine Delta Coronavirus PCR</a><sup>*11</sup></p> <p><b>Necropsy tests:</b> <a href="#">Aerobic bacterial culture</a><sup>1</sup> (1 sensitivity included); <a href="#">Alpha Coronavirus (TGEV) PCR</a><sup>2</sup>; <a href="#">Anaerobic bacterial culture</a><sup>3</sup>; <a href="#">Clostridium difficile Toxins (A/B)</a><sup>4</sup>; <a href="#">Clostridium perfringens Enterotoxin</a><sup>5</sup>; <a href="#">Fecal quantitative</a><sup>6</sup> if ≥ 3 days old; <a href="#">Histopathology</a><sup>7</sup>; <a href="#">Field Necropsy Surcharge</a><sup>7</sup>; <a href="#">Porcine Epidemic Diarrhea Virus (PEDV) PCR</a><sup>*8</sup>; <a href="#">Porcine Reproductive and Respiratory Syndrome</a></p>	<p>\$426.75 (ante mortem samples)</p> <p>\$644.25 (full set of necropsy samples)</p> <p>Testing may qualify for <a href="#">N.Y State contract</a> case subsidy.</p>	<p><b>Ante mortem samples:</b> <b>Fresh feces</b><sup>1,2,6,7,9,10,11</sup> in leak-proof container (20 g) and <b>frozen feces</b><sup>4,5</sup> (5 g), <b>Serum or Oral fluid</b><sup>8</sup>, <b>Fecal swab</b><sup>1,3,10</sup> placed in <b>anaerobic transport media</b> (BBL™ Port-a-cul™ or Anaerobic Systems ATM). <b>One fecal sample</b><sup>10</sup> (1 g, fill to line on container but do not overfill) can be put in ParaPak® transport media to assist with Salmonella recovery (<a href="#">BBL™ Port-a-cul™ or Anaerobic Systems ATM and ParaPak® transport media are available</a> ). <b>SHIP CHILLED AND KEEP FROZEN SAMPLES FROZEN EXCEPT FOR Port-a-cul™ or Anaerobic Systems ATM AND PARAPAK® WHICH SHOULD BE KEPT AT ROOM TEMPERATURE.</b></p> <p><b>Necropsy samples:</b> <b>Tied off loop of bowel with contents</b><sup>1,2,3,4,5,8,10,11,12,13</sup> (frozen), <b>+/- intestinal swab</b><sup>1,3,10</sup> placed in <b>anaerobic transport media</b> (BBL™ Port-a-cul™ or Anaerobic Systems ATM), <b>tied off loop of bowel with contents</b><sup>1,2,8,10,11,12,13</sup> (fresh), <b>fresh feces or colon contents</b><sup>6</sup> in leak-proof container (10 g), <b>fresh tissues</b><sup>9</sup>: lung, lymph nodes, tonsils, and spleen, <b>full set of formalin fixed tissues</b><sup>7</sup> (including multiple sections of intestinal tract). <b>SHIP CHILLED AND KEEP FROZEN SAMPLES FROZEN EXCEPT FOR Port-a-cul™ or Anaerobic Systems ATM WHICH SHOULD BE</b></p>

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	<p><a href="#">PCR</a><sup>*9</sup>; <a href="#">Salmonella culture</a><sup>10</sup>; <a href="#">Swine Delta Coronavirus PCR</a><sup>*11</sup>; (2) <a href="#">Virus FAs</a><sup>12</sup> [<a href="#">Porcine Rotavirus, PRRSV</a>]; <a href="#">Virus Isolation</a><sup>13</sup></p> <p>Consider the * <a href="#">PED/TGE combination PCR</a> test.</p> <p>May want to consider <a href="#">Clostridium perfringens genotyping PCR</a> for identification of the genes for specific toxins if <a href="#">Clostridium perfringens</a> is isolated. If <a href="#">E. coli</a> is isolated, consider * <a href="#">Escherichia coli genotyping PCR</a> to further identify which genes for which adhesins and toxins are present.</p>		<p><b>KEPT AT ROOM TEMPERATURE. PROTECT FIXED TISSUE FROM FREEZING.</b></p>
<p><b>Porcine Diarrhea, Weaned Pigs Diagnostic Plan</b></p> <div style="border: 2px solid black; padding: 5px; margin: 10px 0;"> <p><b>PLEASE NOTE THAT ACCURATE DIAGNOSIS OF DIARRHEA IN WEANED PIGS USUALLY REQUIRES SUBMISSION OF TISSUES.</b></p> <p><i>Results of tests on feces or fecal swabs only, must be evaluated with consideration of clinical signs. Accurate diagnosis requires the detection of the agent(s) as well as compatible histologic lesions from post mortem samples.</i></p> </div> <p><i>Please also note that oral fluid makes a great sample for monitoring certain circulating pathogens in swine populations</i></p>	<p><b>Ante mortem tests:</b> <a href="#">Aerobic bacterial culture</a><sup>1</sup> (1 sensitivity included); <a href="#">Alpha Coronavirus (TGEV) PCR</a><sup>2</sup>; <a href="#">Anaerobic bacterial culture</a><sup>3</sup>; <a href="#">Brachyspira culture</a><sup>*4</sup>; <a href="#">Clostridium perfringens Enterotoxin</a><sup>5</sup>; <a href="#">Fecal quantitative</a><sup>6</sup>; <a href="#">Lawsonia PCR</a><sup>7</sup>; <a href="#">Porcine Epidemic Diarrhea Virus (PEDV) PCR</a><sup>*8</sup>; <a href="#">Porcine Reproductive and Respiratory Syndrome PCR</a><sup>*9</sup>; <a href="#">Rotavirus Antigen Detection, Group A</a><sup>10</sup>; <a href="#">Salmonella culture</a><sup>11</sup>; <a href="#">Swine Delta Coronavirus PCR</a><sup>*12</sup>; <a href="#">Yersinia culture</a><sup>13</sup></p> <p><b>Necropsy tests:</b> <a href="#">Aerobic bacterial culture</a><sup>1</sup> (1 sensitivity included); <a href="#">Alpha Coronavirus (TGEV) PCR</a><sup>2</sup>; <a href="#">Anaerobic bacterial culture</a><sup>3</sup>; <a href="#">Brachyspira culture</a><sup>*4</sup>; <a href="#">Clostridium perfringens Enterotoxin</a><sup>5</sup>;</p>	<p>\$473.50 (ante mortem samples)</p> <p>\$719.00 (full set of necropsy samples)</p> <p>Testing may qualify for <a href="#">N.Y State contract</a> case subsidy.</p>	<p><b>Ante mortem samples:</b> <b>Fresh feces</b><sup>1,2,4,6,7,8,10,11,12,13</sup> in leak-proof container (20 g) and <b>frozen feces</b><sup>5</sup> (5 g), <b>Serum</b><sup>9</sup>, <b>Oral fluid</b><sup>8,9,12</sup>, <b>fecal swab</b><sup>1,3,11,13</sup> placed in <b>anaerobic transport media</b> (BBL™ Port-a-cul™ or Anaerobic Systems ATM), <b>Rectal swab</b><sup>4</sup> (this is the <b>preferred ante mortem sample for Brachyspira</b>) placed in aerobic transport media (Amies with charcoal) or anaerobic transport media (BBL™ Port-a-cul™ or Anaerobic Systems ATM). <b>One fecal sample</b><sup>11,13</sup> (1 g, fill to line on container but do not overfill) can be put in ParaPak® transport media to assist with Salmonella recovery (<a href="#">BBL™ Port-a-cul™ and ParaPak® transport media are available</a> ). <b>SHIP CHILLED AND KEEP FROZEN SAMPLES FROZEN EXCEPT FOR Port-a-cul™, ANAEROBIC TRANSPORT SYSTEMS ATM, AND PARAPAK® WHICH SHOULD BE KEPT AT ROOM TEMPERATURE.</b></p> <p><b>Necropsy samples:</b> <b>Tied off loop of bowel with contents</b><sup>1,2,3,5,8,9,11,12,13,14,15</sup> (frozen), <b>+/- intestinal swab</b><sup>1,3,11,13</sup> placed in <b>anaerobic transport media</b> (BBL™ Port-a-cul™ or Anaerobic Systems ATM),</p>

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<p><i>such as PRRSV, PCV2, Mycoplasma pneumonia, SIV, and PED. More information on collecting, shipping and testing oral fluid is available through <a href="#">Iowa State University</a>.</i></p>	<p><a href="#">Fecal quantitative</a><sup>6</sup>; <a href="#">Histopathology</a><sup>7</sup>; <a href="#">Field Necropsy Surcharge</a><sup>7</sup>; <a href="#">Lawsonia PCR</a><sup>8</sup>; <a href="#">Porcine Epidemic Diarrhea Virus (PEDV) PCR</a><sup>*9</sup>; <a href="#">Porcine Reproductive and Respiratory Syndrome PCR</a><sup>*10</sup>; <a href="#">Salmonella culture</a><sup>11</sup>; <a href="#">Swine Delta Coronavirus PCR</a><sup>*12</sup>; <a href="#">Yersinia culture</a><sup>13</sup> (3) <a href="#">Virus FAs</a><sup>14</sup> [<a href="#">Porcine Rotavirus, PRRSV, Porcine circovirus-2</a>]; <a href="#">Virus Isolation</a><sup>15</sup></p>		<p><b>1,2,4,8,9,11,12,13,14,15</b> (fresh)--<b>colon or cecum</b><sup>4</sup> are preferred for Brachyspira, <b>fresh feces</b><sup>6</sup>, in leak-proof container (10 g), <b>fresh tissues such as lung, lymph nodes, tonsils, and spleen</b><sup>10</sup>, <b>full set of formalin fixed tissues</b><sup>7</sup> (including multiple sections of intestinal tract). <b>SHIP CHILLED AND KEEP FROZEN SAMPLES FROZEN EXCEPT FOR Port-a-cul™ AND ANAEROBIC TRANSPORT SYSTEMS WHICH SHOULD BE KEPT AT ROOM TEMPERATURE. PROTECT FIXED TISSUE FROM FREEZING.</b></p>
	<p>*If Brachyspira culture is positive, <a href="#">Brachyspira PCR</a> can be used to further characterize the isolate.</p> <p>*May want to consider the <a href="#">PED/TGE combination PCR</a></p> <p>May also consider <a href="#">Cryptosporidium ELISA</a> on piglets 1-6 months old (test performed on fresh feces).</p> <p>May want to consider <a href="#">Clostridium perfringens genotyping PCR</a> for identification of the genes for specific toxins if Clostridium perfringens is isolated. If E. coli is isolated, consider * <a href="#">Escherichia coli genotyping PCR</a> to further identify which genes for which adhesins and toxins are present.</p>		

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VSS-WEB-063-V03

LTT – Lavender Top Tube  
RTT – Red Top Tube  
**PORCINE PANELS**  
2/10/2017 Version 1

DIAGNOSTIC PLAN/PANEL	TESTS PERFORMED	PRICES	SAMPLES NEEDED
<p><b>Porcine Respiratory Diagnostic Plan</b></p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p><b>PLEASE NOTE THAT ACCURATE DIAGNOSIS OF RESPIRATORY DISEASE IN PIGS USUALLY REQUIRES SUBMISSION OF TISSUES.</b></p> <p>Results of tests on nasal/pharyngeal swabs only, must be evaluated with consideration of clinical signs. Accurate diagnosis requires the detection of the agent(s) as well as compatible histologic lesions from post mortem samples.</p> </div> <p>Please also note that oral fluid makes a great sample for monitoring certain circulating pathogens in swine populations such as PRRSV, PCV2, Mycoplasma pneumonia, SIV and PED. More information on collecting, shipping and testing oral fluid is available through <a href="#">Iowa State University</a>.</p>	<p><b>Ante mortem tests:</b> <a href="#">Aerobic bacterial culture</a><sup>1</sup> (1 sensitivity included); <a href="#">Alpha Coronavirus PCR (PRCV)</a><sup>2</sup>; <a href="#">Cytology</a><sup>3</sup>; <a href="#">Mycoplasma culture</a><sup>4</sup>; <a href="#">Mycoplasma hyopneumoniae PCR</a><sup>*5</sup>; <a href="#">Porcine Circovirus-2 PCR</a><sup>*6</sup>; <a href="#">Porcine Cytomegalovirus PCR</a><sup>*7</sup>; <a href="#">Porcine Reproductive and Respiratory Syndrome PCR</a><sup>*8</sup>; <a href="#">PRCV/TGE ELISA</a><sup>*9</sup>; <a href="#">Swine Influenza Virus PCR</a><sup>10</sup>; (4) <a href="#">Virus FAs</a><sup>11</sup>: [<a href="#">Porcine circovirus-2</a>, <a href="#">Porcine Reproductive and Respiratory Syndrome</a>, <a href="#">Porcine Respiratory Coronavirus</a>, <a href="#">Swine Influenza virus</a>]; <a href="#">Virus isolation</a><sup>12</sup></p> <p><b>Necropsy tests:</b> <a href="#">Aerobic bacterial culture</a><sup>1</sup> (1 sensitivity included); <a href="#">Alpha Coronavirus PCR (PRCV)</a><sup>2</sup>; ; <a href="#">Histopathology</a><sup>4</sup>; <a href="#">Field Necropsy Surcharge</a><sup>4</sup>; <a href="#">Mycoplasma culture</a><sup>5</sup>; <a href="#">Mycoplasma hyopneumoniae PCR</a><sup>6</sup>; <a href="#">Porcine Circovirus-2 PCR</a><sup>*7</sup>; <a href="#">Porcine Cytomegalovirus PCR</a><sup>*8</sup>; <a href="#">Porcine Reproductive and Respiratory Syndrome PCR</a><sup>*9</sup>; <a href="#">Swine Influenza Virus PCR</a><sup>10</sup>; (4) <a href="#">Virus FAs</a><sup>11</sup>: [<a href="#">Porcine circovirus-2</a>, <a href="#">Porcine Reproductive and Respiratory Syndrome</a>, <a href="#">Porcine Respiratory Coronavirus</a>, <a href="#">Swine Influenza virus</a> ]; <a href="#">Virus isolation</a><sup>12</sup></p>	<p>\$526.86 (ante mortem samples)</p> <p>\$ 565.36 (full set of necropsy samples)</p> <p>Testing may qualify for <a href="#">N.Y State contract</a> case subsidy.</p>	<p><b>Ante mortem samples:</b> <b>Nasal/pharyngeal Swab</b><sup>2,5,6,7,8,10,12</sup> placed in viral transport media or a RTT with 0.5 ml sterile saline, <b>Nasal/pharyngeal Swab</b><sup>1,4</sup> placed in aerobic transport media (Amies w/o charcoal)—Note that this is an unreliable sample for bacterial culture due to pathogens existing as commensals in the upper respiratory tract, <b>Bronchial alveolar lavage (BAL)</b> fluid in RTT<sup>1,2,4,5,6,7,8,10,11,12</sup> , and <b>EDTA tube</b><sup>3</sup> (LTT), (2) <b>air dried slides</b><sup>3</sup> of fluid, and (1) <b>swab inoculated with sample</b><sup>1,4</sup> and place in aerobic transport media (Amies w/o charcoal), <b>Serum</b><sup>8,9</sup> (High serum antibody titers to TGE virus in herds with no evidence of TGE diarrhea may be suggestive of PRCV—a differential ELISA serology test is available as a referral test), <b>Oral Fluid</b><sup>5,6,8,10</sup>, <b>EDTA whole blood</b><sup>7</sup></p> <p><b>Necropsy samples:</b> Section of <b>fresh lung</b><sup>1,2,5,6,7,9,10,11,12</sup> (PRRS is often isolated from lung lavage samples—submit at least one half of lung without holes or slices) +/- <b>(1) swab inoculated with sample</b><sup>1,5</sup> and placed in aerobic transport media (Amies w/o charcoal), <b>Nasal turbinates</b><sup>8</sup>, <b>Nasal Swab</b><sup>2,8</sup> in RTT with 0.5ml sterile saline (PRCV is more readily detected from nasal swabs than from lung tissue), <b>Brain</b><sup>8,12</sup> (submit half fresh and half fixed in formalin), <b>Tonsil</b><sup>12</sup> and <b>full set of tissues</b><sup>4</sup> placed in formalin (include nasal turbinate for confirmation of porcine cytomegalovirus). <b>SHIP FRESH TISSUE AND SWABS CHILLED AND PROTECT FIXED TISSUE FROM FREEZING.</b></p>

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<p><b>Porcine Neurologic Diagnostic Plan</b></p> <p><b>PLEASE STRONGLY CONSIDER RABIES TESTING AT YOUR STATE HEALTH DEPARTMENT</b></p> <p><i>Please note that Classical Swine Fever should also be considered if the signs are appropriate. If so, the proper state health officials should be notified immediately in order to initiate testing.</i></p> <p><i>Please also note that oral fluid makes a great sample for monitoring certain circulating pathogens in swine populations such as PRRSV, PCV2, Mycoplasma pneumonia and SIV. More information on collecting, shipping and testing oral fluid is available through <a href="http://lowa.state.university">lowa State University</a>.</i></p>	<p><a href="#">Aerobic bacterial culture</a><sup>1</sup> (1 sensitivity included); <a href="#">Histopathology</a><sup>2</sup>; <a href="#">Field Necropsy Surcharge</a><sup>2</sup>; <a href="#">Lead, blood</a> or <a href="#">Lead, tissue</a><sup>3</sup>; <a href="#">Listeria culture</a><sup>4</sup>; <a href="#">Pseudorabies PCR</a><sup>5</sup>; <a href="#">Salmonella culture</a><sup>6</sup>; (3) <a href="#">Virus FAs</a><sup>7</sup> [Porcine Reproductive and Respiratory Syndrome, Porcine circovirus-2, Hemagglutination Encephalitis Virus (HEV)]; <a href="#">Virus Isolation</a><sup>8</sup></p> <p>May also want to consider <a href="#">Cerebrospinal Fluid Cytology</a> which requires <b>CSF in EDTA tube (LTT)</b> and (2) <b>air dried slides</b> of CSF. Protect slides from formalin exposure.</p> <p>If salt toxicity is a possibility, consider a <a href="#">mineral panel</a> on <b>fresh brain</b>.</p> <p>May be useful to check <a href="#">selenium</a> level on an <b>EDTA whole blood</b> sample.</p> <p>If whole head is submitted, a rabies brain extraction fee will be applied. Please submit completed <a href="#">NYS rabies specimen history form</a> and write out clear instructions on what additional diagnostic tests should be performed.</p>	<p>\$490.50</p> <p>Testing may qualify for <a href="#">N.Y State contract</a> case subsidy.</p>	<p><b>CSF</b><sup>1,6</sup> sample taken using sterile technique and placed in sterile red top tube +/- (1) <b>swab</b><sup>1,6</sup> inoculated with <b>CSF, OR</b> (1) <b>swab</b><sup>1,6</sup> of meninges prior to contamination and placed in aerobic transport media (Amies with charcoal), <b>fresh brain (preferably brainstem and cerebellum)</b><sup>4,5,7,8</sup> placed in sterile container, <b>EDTA or Heparin whole blood</b><sup>3</sup> (<b>LTT</b> or <b>GTT</b>) or <b>fresh liver</b><sup>3</sup> in sterile container, <b>full set of tissues</b><sup>2</sup> placed in formalin, including multiple sections of brain and spinal cord. <b>SHIP CHILLED AND PROTECT FIXED TISSUE FROM FREEZING. PLEASE INDICATE IF RABIES TESTING IS PENDING.</b> See <a href="#">Tissues for Rabies Diagnosis</a> for photos of brain samples needed for rabies testing. If toxins are suspected a <a href="#">full toxicology set of tissues</a> should be collected.</p>

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DIAGNOSTIC PLAN/PANEL	TESTS PERFORMED	PRICES	SAMPLES NEEDED
<p><b>Dermatology Diagnostic Plans</b></p> <p><b>Deep lesion</b></p> <p><b>Superficial lesion</b></p>	<p><a href="#">Aerobic bacterial culture</a><sup>1</sup> (1 sensitivity included); <a href="#">Biopsy for parasite exam</a><sup>2</sup>; <a href="#">Fungal culture</a><sup>3</sup>; <a href="#">Gram stain</a><sup>4</sup>; <a href="#">Histopathology (biopsy)</a><sup>5</sup>;</p> <p><a href="#">Fungal culture</a><sup>1</sup>; <a href="#">Gram stain</a><sup>2</sup>; <a href="#">Histopathology (biopsy)</a><sup>3</sup>; <a href="#">Skin scraping for ectoparasite identification</a><sup>4</sup>; <a href="#">Cytology</a><sup>5</sup></p> <p><b>Necropsy tests:</b> <a href="#">Aerobic bacterial culture</a><sup>1</sup> (1 sensitivity included); <a href="#">Fungal culture</a><sup>2</sup>; <a href="#">Histopathology (biopsy)</a><sup>3</sup></p> <p>All skin biopsy submissions should be accompanied by a <a href="#">Dermatohistopathology Submission Form</a>. For additional guidance refer to <a href="#">Dermatopathology Sampling Guide</a>.</p>	<p>Deep lesion: \$233.00</p> <p>Testing may qualify for <a href="#">N.Y State contract</a> case subsidy.</p> <p>Superficial lesion: \$213.00</p> <p>Testing may qualify for <a href="#">N.Y State contract</a> case subsidy.</p>	<p><b>Deep lesion:</b> (2) <b>fresh skin biopsies</b><sup>1,2,3,4</sup> in plain <b>RTT</b> with 0.5 ml sterile saline to keep moist (not wet) +/- <b>swab</b><sup>1,3</sup> <b>from deep in tissue</b> placed in aerobic transport media (Amies with charcoal), multiple <b>formalin fixed skin biopsies</b><sup>5</sup>. <b>SHIP CHILLED AND PROTECT FIXED TISSUE FROM FREEZING.</b></p> <p><b>Superficial lesion:</b> (1) <b>hair and skin scraping</b><sup>1,2</sup> for fungal culture and gram stain sent in a sealable paper envelope, (1) <b>skin scraping</b><sup>4</sup> for ectoparasite identification in an escape proof, non-porous container, (2) <b>impression smears/skin scrapings/fluid aspirates</b><sup>5</sup> for cytology placed on glass slides and air dried, and multiple <b>formalin fixed skin biopsies</b><sup>3</sup>. No aerobic culture is included in the superficial plan. <b>SHIP AT ROOM TEMPERATURE AND PROTECT FROM TEMPERATURE EXTREMES. PROTECT SLIDES FROM FORMALIN EXPOSURE.</b></p> <p><b>Necropsy Samples:</b> <b>fresh tissues</b><sup>1,2</sup>: skin in plain <b>RTT</b> with 0.5 ml sterile saline to keep moist (not wet), lung, liver, spleen, lymph nodes, tonsils, kidneys; <b>full set of tissues</b><sup>3</sup> <b>placed in formalin</b></p>
<p><b>Porcine Multisystemic Disease Diagnostic Plan</b></p> <p><i>Please note that oral fluid makes a great sample for monitoring certain circulating pathogens in swine populations such as PRRSV, PCV2, Mycoplasma pneumonia, SIV, and PED. More information on collecting, shipping and testing oral fluid is available through <a href="#">Iowa State University</a>.</i></p>	<p><a href="#">Aerobic bacterial culture</a><sup>1</sup> (1 sensitivity included); <a href="#">Alpha Coronavirus (TGEV) PCR</a><sup>2</sup>; <a href="#">Anaerobic bacterial culture</a><sup>3</sup>; <a href="#">Brachyspira culture</a><sup>*4</sup>; <a href="#">Clostridium difficile Toxins (A/B)</a><sup>5</sup>; <a href="#">Clostridium perfringens Enterotoxin</a><sup>6</sup>; <a href="#">Cytology</a><sup>7</sup>; <a href="#">Fecal quantitative</a><sup>8</sup>; <a href="#">Histopathology</a><sup>9</sup>; <a href="#">Lawsonia PCR</a><sup>10</sup>; <a href="#">Mycoplasma culture</a><sup>11</sup>; <a href="#">Mycoplasma hyosynoviae PCR</a><sup>12</sup>; <a href="#">Mycoplasma hyorhinis PCR</a><sup>13</sup>; <a href="#">Porcine Circovirus-2 PCR</a><sup>*14</sup>; <a href="#">Porcine Cytomegalovirus PCR</a><sup>*15</sup>; <a href="#">Porcine Epidemic Diarrhea Virus (PEDV) PCR</a><sup>*16</sup>; <a href="#">Porcine Reproductive and Respiratory</a></p>	<p>\$1102.75</p> <p>Testing may qualify for <a href="#">N.Y State contract</a> case subsidy.</p>	<p><b>Fresh Tissue</b><sup>1,2,3,17,18,19,22,23</sup>: brain, lung<sup>11,14,17,21</sup>, kidney, liver, heart, spleen, lymph nodes, tonsils, intestine; <b>Nasal turbinates or swab of turbinates</b><sup>15</sup> in RTT with 0.5ml sterile saline; <b>Joint fluid</b> in RTT<sup>1,11,12,13</sup>, and <b>EDTA tube</b><sup>7</sup> (LTT), (2) <b>air dried slides</b><sup>7</sup> of fluid, and (1) <b>swab inoculated with sample</b><sup>1,11</sup> and place in aerobic transport media (Amies w/o charcoal); <b>Joint tissue</b> such as synovium<sup>12,13</sup>; <b>Tied off loop of bowel with contents</b><sup>1,2,3,5,6,10,16,19,20,22,23</sup> (frozen), +/- <b>intestinal swab</b><sup>1,3,19</sup> <b>placed in anaerobic transport media</b> (BBL™ Port-a-cul™ or Anaerobic Systems ATM), <b>tied off loop of bowel with contents</b><sup>1,2,4,10,16,19,20,22,23</sup> fresh; <b>(colon or cecum</b><sup>4</sup> <b>or rectal swab</b><sup>4</sup> are preferred for</p>

Diagnostic Plans/Panels can be ordered by writing the complete plan/panel name. The tests are also available individually. Numbers in parentheses are quantity of tests. Superscript numbers match necessary samples to specific test. Each accession will be charged the standard AHDC accession fee. Prices may change without notice.  
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DIAGNOSTIC PLAN/PANEL	TESTS PERFORMED	PRICES	SAMPLES NEEDED
	<p> <a href="#">Syndrome PCR</a><sup>*17</sup>; <a href="#">Pseudorabies (PRV) PCR</a><sup>*18</sup>; <a href="#">Salmonella culture</a><sup>19</sup>; <a href="#">Swine Delta Coronavirus PCR</a><sup>*20</sup>; <a href="#">Swine Influenza Virus PCR</a><sup>21</sup>; (6) <a href="#">Virus FAs</a><sup>22</sup>; [Porcine circovirus-2, Porcine Reproductive and Respiratory Syndrome, Porcine Respiratory Coronavirus, Swine Influenza virus, Porcine Rotavirus, Porcine Parvovirus]; <a href="#">Virus isolation</a><sup>23</sup> </p> <p>           If salt toxicity is a possibility, consider a <a href="#">mineral panel</a> on <b>fresh brain</b>. May want to check <a href="#">selenium</a> levels on an <b>EDTA whole blood</b> sample or liver. If Brachyspira culture is positive, * <a href="#">Brachyspira PCR</a> can be used to further characterize the isolate. May also consider the * <a href="#">PED/TGE combination PCR</a> test. May also consider <a href="#">Cryptosporidium ELISA</a> on piglets 1-6 months old. <a href="#">Clostridium perfringens genotyping PCR</a> is available for identification of the genes for specific toxins if Clostridium perfringens is isolated. If E. coli is isolated, consider * <a href="#">Escherichia coli genotyping PCR</a> to further identify which genes for which adhesins and toxins are present.         </p>		<p>           Brachyspira) <b>fresh feces or colon contents</b><sup>8</sup>, in leak-proof container (10 g), <b>full set of formalin fixed tissues</b><sup>9</sup> (including multiple sections of intestinal tract). <b>SHIP CHILLED AND KEEP FROZEN SAMPLES FROZEN EXCEPT FOR Port-a-cul™ AND ANAEROBIC TRANSPORT SYSTEMS ATM WHICH SHOULD BE KEPT AT ROOM TEMPERATURE. PROTECT FIXED TISSUE FROM FREEZING.</b> </p> <p>           If toxins are suspected a <a href="#">full toxicology set of tissues</a> should be collected         </p>

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VSS-WEB-063-V03

LTT – Lavender Top Tube  
 RTT – Red Top Tube  
**PORCINE PANELS**  
 2/10/2017 Version 1