Aseptic Feed Sampling Techniques for Detection of PED virus in Feed or Feed Ingredients

February 14, 2014
Kansas State University Applied Swine Nutrition Team

Due to the ubiquitous nature of PED virus in infected farms and sensitivity of the PCR testing it is important to minimize potential for cross contamination when sampling feed or feed ingredients.

Materials needed for each sample:
- Clean disposable gloves
- Sterile transfer utensil such as a cup
- One sterile whirl-pak bag or similar

Wear clean disposable gloves over a sterile ob sleeve and use aseptic technique. Change gloves and sleeves between each sample.

Packages – External surface should be wiped with a bleach wipe (12 oz/gallon). Use sterile whirl-pac bag. (If whirl-pac bags are not available, use 2 sterile disposable 250 ml/8 oz cups per sample.) Open package in such a manner to permit withdrawal of sample without contacting packaging material. Use a separate sterile transfer utensil for each sample, to transfer product from container to whirl-pac bag. Fill bags a maximum of 2/3 full.

Bulk - Use sterile whirl-pac bag. (If whirl-pac bags not available, use 2 sterile disposable 250/ml/8oz cups per sample.) Take five well-spaced sub-samples directly by scooping from the lot with sterile sampling cup or by passing sterile sampling cup or whirl-pac through the stream of a lot being transferred into or out of a storage bin. If using sampling cup, transfer sub-samples to whirl-pac bag. Close bag immediately.

Sample size of 1.1 - 2.2 pounds (500 grams - 1 kg).

Adapted from AFCO feed inspectors manual 2nd ed 2000.

Further recommendations are to maintain the samples frozen while transport to the lab.
### Diagnostic Laboratories for Porcine Epidemic Diarrhea (PED) virus testing

<table>
<thead>
<tr>
<th>Lab</th>
<th>Address &amp; Phone</th>
<th>Estimated turnaround time</th>
<th>Web link</th>
<th>Fees</th>
<th>PED specific link</th>
<th>Submission form</th>
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<tbody>
<tr>
<td>KSU</td>
<td>Kansas State Veterinary Diagnostic Laboratory&lt;br&gt;1800 Denison Avenue&lt;br&gt;Manhattan, KS 66506&lt;br&gt;Phone: 866-512-5650&lt;br&gt;<a href="mailto:dlaboffice@vet.k-state.edu">dlaboffice@vet.k-state.edu</a></td>
<td>1 business day</td>
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<td>ISU</td>
<td>Veterinary Diagnostic Laboratory&lt;br&gt;Iowa State University&lt;br&gt;1600 South 16th St&lt;br&gt;Ames, IA  50011&lt;br&gt;Phone: 515-294-1950&lt;br&gt;Fax: 515-294-3564&lt;br&gt;<a href="mailto:isuvdlv@iastate.edu">isuvdlv@iastate.edu</a></td>
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<td>SDSU</td>
<td>Animal Disease Research and Diagnostic Laboratory&lt;br&gt;South Dakota State University&lt;br&gt;Box 2175 North Campus Drive&lt;br&gt;Brookings, SD 57007&lt;br&gt;Phone: 605-688-5171&lt;br&gt;<a href="mailto:janine.Hennings@SDSTATE.EDU">janine.Hennings@SDSTATE.EDU</a></td>
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<td>MN</td>
<td>Veterinary Diagnostic Laboratory&lt;br&gt;University of Minnesota&lt;br&gt;1333 Gortner Avenue&lt;br&gt;St. Paul, MN 55108-1098&lt;br&gt;Phone: 612-625-8787 / 800-605-8787&lt;br&gt;Fax: 612-624-8707&lt;br&gt;<a href="mailto:vdl@umn.edu">vdl@umn.edu</a></td>
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Ensure timely delivery to the diagnostic laboratory and ensure samples are not in transit over a weekend.

Also, if retaining samples it is important to store samples frozen in a freezer without automatic defrost.