



**A: Suggested Johne's testing strategies for herds with low, no, or unknown status**

	<b>Objectives</b>	<b>Who to test</b>	<b>Test</b>
<b>Targeted sampling</b>	<ol style="list-style-type: none"> <li>1. Preliminary investigation of herd status - look for infected animals</li> <li>2. Obtain definitive diagnosis in herd</li> <li>3. Gain experience with tests: How do ELISA and fecal culture results compare in higher risk animals in your herd?</li> </ol>	Animals at highest risk of being infected: <ul style="list-style-type: none"> <li>➤ Thin</li> <li>➤ Poor production</li> <li>➤ Purchased</li> <li>➤ Persistent intermittent diarrhea</li> <li>➤ Suspected or known exposure to <i>M. para</i> from manure, feed, water, other animals</li> </ul>	ELISA 1 <sup>st</sup>  Follow-up FC if KELA moderate or moderate high: <ul style="list-style-type: none"> <li>➤ &gt;40</li> <li>➤ &gt;60</li> <li>➤ &gt;80</li> </ul> OR  ELISA and fecal culture at same time
<b>30 Random samples, cows 2<sup>nd</sup> lactation or greater</b>	<ol style="list-style-type: none"> <li>1. One first-step option to suggest low level infection, or ultimately test negative status:               <ul style="list-style-type: none"> <li>➤ ~ 50% chance of one positive if =&gt;10% infection.</li> </ul> </li> <li>2. Reasonable when no history, or assume no or low infection</li> <li>3. <b>Assess risk prior to decision to buy animals from a herd</b></li> <li>4. Level 1, USVJHSP*</li> </ol>	30 animals 2 <sup>nd</sup> lactation or greater  Randomly selected  Should include any individuals suspected at higher risk	ELISA 1 <sup>st</sup>  Follow-up FC if KELA elevated or positive: <ul style="list-style-type: none"> <li>➤ &gt;40</li> <li>➤ &gt;60</li> <li>➤ &gt;80</li> </ul>
<b>100 Random samples cows 2<sup>nd</sup> lactation or greater</b>	<ol style="list-style-type: none"> <li>1. Same as above with greater chance of finding one ELISA 'positive' if 10% infection (closer to 90%).</li> </ol>	100 animals 2 <sup>nd</sup> lactation or greater  Same as above	Same as above
<b>Whole herd, cows &gt; 24mos. or All cows 2<sup>nd</sup> lactation or greater</b>	<ol style="list-style-type: none"> <li>1. Attempt to identify animals with advanced infection</li> <li>2. Obtain test negative herd test as greater assurance of low risk status</li> <li>3. Level 2 NYJHSP** (&gt;24 m) herd status guidelines or Level 2 USVJHSP (=&gt;2<sup>nd</sup> lactation)</li> </ol>	Whole herd > 24mos.  or all 2 <sup>nd</sup> lactation or greater	Same as above

\* US Voluntary Johne's Herd Status Program Guidelines

\*\* New York State Cattle Health Assurance Program, Johne's Herd Status Program Guidelines  
 Same as USVJHSP except herd test of all cattle >24mos qualifies for Level 2, bypassing Level 1.

**B. Suggested Johne's testing strategies for herds with a history of Johne's, that have minimal prior testing & or need a definitive diagnosis, and or that desire more insight or to use testing as part of herd plan**

	<b>Objectives</b>	<b>Who to test</b>	<b>Test</b>
<b>Targeted sampling</b>	<ol style="list-style-type: none"> <li>1. Preliminary investigation of herd status - look for infected animals</li> <li>2. Obtain definitive diagnosis in herd</li> <li>3. Gain experience with tests: How do ELISA and fecal culture results compare in higher risk animals in your herd?</li> </ol>	<p>Animals at highest risk of being infected:</p> <ul style="list-style-type: none"> <li>➤ Thin</li> <li>➤ Poor production</li> <li>➤ Purchased</li> <li>➤ Persistent intermittent diarrhea</li> <li>➤ Suspected or known exposure to <i>M. para</i> from manure, feed, water, other animals</li> <li>➤ Etc.</li> </ul>	<p>ELISA 1<sup>st</sup></p> <p>Follow-up FC if Moderate or Moderate-high KELA. Cut-off depends on objectives &amp; aggressiveness of herd plan, &amp; control decisions to be made, \$\$:</p> <ul style="list-style-type: none"> <li>➤ &gt;40</li> <li>➤ &gt;60</li> <li>➤ &gt;80</li> <li>➤ &gt;40 and &lt; 100</li> </ul> <p>OR</p> <p>ELISA and fecal culture at same time, most sensitive, aggressive, \$\$</p>
<b>'Rolling' herd testing</b>	<ol style="list-style-type: none"> <li>1. Identify higher risk infected animals on regular basis</li> <li>2. Assist management decisions on high risk individuals</li> <li>3. Assess herd prevalence i.e. all productive animals tested by 1 yr.</li> <li>4. Regular testing maintains awareness and currentness of results. Offsets any disadv. of added shipping/ handling.</li> </ol>	<p>Productive animals, in production cohort groups, at regular intervals. Time testing such that current results available at control decision points:</p> <p><u>EXAMPLE:</u></p> <ul style="list-style-type: none"> <li>➤ Cows @ 120-150 DIM Or</li> <li>➤ Cows @ or near Dry Off</li> <li>➤ Test a group monthly, biweekly, etc. depending on control plan decisions</li> <li>➤ Results available for colostrum, breeding, culling, pasture decisions, etc</li> </ul>	<p>If moderate infection prevalence and definitive diagnosis exists, ELISA is adequate to assist decision making</p> <p>Do follow-up FC when desire more definitive diagnosis in an individual.</p> <p>KELA Cut-off same as above</p>
<b>Whole herd test, mature cows, at one time</b>	<ol style="list-style-type: none"> <li>1. Urgency to identify infected animals in entire herd at once: For Ex: Plan to cull large number of animals</li> <li>2. Not a very effective option for long-term control plan; results outdated by 6 months.</li> </ol>	<p>All cows &gt; 24 mos.</p>	<p>ELISA 1<sup>st</sup></p> <p>Follow-up FC if Moderate or Moderate-high KELA. Cut-off depends on objectives &amp; aggressiveness of herd plan &amp; control decisions to be made, \$\$:</p> <ul style="list-style-type: none"> <li>➤ &gt;40</li> <li>➤ &gt;60</li> <li>➤ &gt;80</li> <li>➤ &gt;40 and &lt; 100</li> </ul> <p>OR</p> <p>ELISA and fecal culture at same time – most sensitive, aggressive, \$\$</p>