Producer perceptions of food-borne and zoonotic diseases – sheep & goats.

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Community-based participatory research

Work with producers to understand:

- Their perceptions of food-borne & zoonotic disease issues in their industry
- How they would most like to receive results from research (i.e. preferred “knowledge translation” methods)
Use the results of this research, in consultation with our industry & producer partners to:
• Develop a long-term research initiative on zoonotic diseases that will address industry’s & producers’ needs and concerns
Small ruminant industries are comprised of:

- Meat sheep
- Meat goat
- Dairy sheep
- Dairy goat

Considered separately
Focus groups

Separate for different industries

- 6 meetings with a total of 40 participants
  - 2 meat sheep
  - 1 dairy sheep
  - 2 dairy goat
  - 1 meat goat
- Perceptions of food-borne and zoonotic diseases important to their industry
- How would they most like to receive results from research?
Based on feedback from focus groups

<table>
<thead>
<tr>
<th>Industry Group</th>
<th>Sampling Frame (Source, # producers)</th>
<th>Sample Size</th>
<th>Response Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dairy Goat</td>
<td>OMAFRA, 255 producers</td>
<td>255</td>
<td>53.8%</td>
</tr>
<tr>
<td>Dairy Sheep</td>
<td>OMAFRA, 40 producers</td>
<td>40</td>
<td>32.4%</td>
</tr>
<tr>
<td>Meat Goat</td>
<td>OGBA &amp; CMGA, 109 producers</td>
<td>109</td>
<td>60.6%</td>
</tr>
<tr>
<td>Meat Sheep</td>
<td>OSMA, 3500 producers</td>
<td>450</td>
<td>29.3%</td>
</tr>
</tbody>
</table>
Risk from 13 Zoonotic Diseases

- High level of concern
  - Johne’s disease
  - Listeriosis
  - E coli O157:H7
  - Orf (soremouth)
  - Q-fever (goat)
  - Chlamydophila (goat)

- Uncertainty regarding campylobacter, giardia, salmonella, Q-fever (sheep), chlamydophila (sheep), listeriosis (dairy sheep)
Previous Zoonotic Illness?

- Contracted from animals or their products:
  - Producers: **8.4% to 10.6%**
  - Immediate family that works with the animals: **3.7% to 27.3%**
  - Immediate family that does not work with the animals: **0 to 2.3%**
  - Employee that works with the animals: **0 to 1.6%**
Most common illnesses reported:
- Orf (20 responses) & Ringworm (14 responses)
- Q fever (4 responses)
Perceptions of Health Care:

“My family physician is able to provide advice on diseases that sheep/goat producers might pick up from working with their animals.”
- Majority of producers disagreed/strongly disagreed (52.5% to 71.4%)

“It would be useful to provide rural family physicians with information on sheep/goat zoonotic diseases.”
- Majority of producers agreed/strongly agreed (68.0% to 85.2%)
Confidence & Importance in Knowledge

Food-borne diseases:
- ~15% to 33% of producers: “not at all confident”
- ~55% to 90%: very important/important that they receive more information

Zoonotic diseases:
- ~15% to 36% of producers: “not at all confident”
- ~63% to 90%: very important/important that they receive more information
Q-fever highly desired among dairy goat and meat goat producers (ranked 4th)
Preferred Methods of KTT Dissemination

- What all groups like
  - Industry publications (74.0% - 95.6%)
  - Face-to-face meetings (54.6% - 80.4%)
  - Summaries by mail (77.0% - 91.7%)
  - Paper copies of producer handbooks (82.4% - 91.7%)
  - Summaries delivered by milk truck drivers (dairy only – 58.3% & 76.4%)
KTT Dissemination

- What they found less useful
- Summaries sent by email
- Summaries on industry websites (meat)
- Electronic versions of handbooks
What Have We Done Since?

- Developed information sheets on Johne’s disease and Q-fever for producers
- Obtained research funding for (nearing completion):
  - Prevalence of *Coxiella burnetii* in sheep and goats and the people that care for them
  - Detection of Johne’s disease in dairy sheep and dairy goat farms.
Invited research participants, industry representatives and funding agencies to Small Ruminant Research day – January 31, 2013

- Closed to press
- Opportunity to face-to-face with researchers to learn what these results mean to their animals and people that care for them.
Acknowledgements

- Participating producers
  - Ontario Sheep Marketing Association
  - Ontario Goat Breeders Association
  - OMAFRA
  - Graduate students
    - Laura Falzon, Brad DeWolf, Alessia Guthrie, Brian Nelson, Rafael Neves, Riki Sorge, Claire Windeyer & Erica Pufall

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Questions?