Sustainable Development of the Pig Industry in Canada

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PIG INDUSTRY IN QUÉBEC (CANADA)
PIG INDUSTRY IN MANITOBA (CANADA)
### PIG PRODUCTION IN CANADA

<table>
<thead>
<tr>
<th></th>
<th>QUÉBEC</th>
<th>MANITOBA</th>
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<tbody>
<tr>
<td>Number of hog producers</td>
<td>3,818 (2010)</td>
<td>2,500 farm families and workers (2009)</td>
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<tr>
<td>Number of sows</td>
<td>331,259 (2011)</td>
<td>318,000 (2010)</td>
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<td></td>
<td>(32,707 feeders exported to USA)</td>
<td>5,3 millions heads sold out of province (2009)</td>
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<tr>
<td>Phosphorus Regulation</td>
<td>1997 (P-Reg 1)</td>
<td>2006</td>
</tr>
<tr>
<td></td>
<td>2002 (P-Reg 2)</td>
<td></td>
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<tr>
<td>Type of Animal</td>
<td>Category</td>
<td>Phosphorus (P) Excretion (kg P/animal/yr)</td>
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<tr>
<td>---------------</td>
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<td>-----------------------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1998</td>
</tr>
<tr>
<td>PIG</td>
<td>Sow (+ unweaned piglets)</td>
<td>8.09</td>
</tr>
<tr>
<td></td>
<td>Weanlings (nursery)</td>
<td>0.100</td>
</tr>
<tr>
<td></td>
<td>Grower/Finisher</td>
<td>1.000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2011</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6.128</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.086</td>
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<td>0.654</td>
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INDICATORS OF SUSTAINABLE DEVELOPMENT

INDICATORS OF SUSTAINABLE DEVELOPMENT
FOR THE PORK INDUSTRY IN QUEBEC
Cap-and-Trade System in Québec

- Carbon market (December 2011)-Western Climate Initiative (WCI)

- Quantification protocol for the pig industry (July 2012)
  - Cover on manure storage structure + burning of CH$_4$ (July 2012)
  - Feeding strategies (eventually...)
  - Liquid/solid separation & manure spreading (eventually...)

- Software to estimate the carbon & water footprint for production of pig in Québec + Quantification protocol (July 2012)
CAP-AND-TRADE SYSTEM IN QUÉBEC
LYFE CYCLE ANALYSIS (LCA) IN QUÉBEC

Carbon - Water – Socio-economic LCA of pig

Feeding
- Crop production
  - Feed Production

Livestock facilities
- Sow barn
  - Nursery
- Grower/Finisher barn

Processing
- Facilities
  - 1 kg carcass

Energy, infrastructure and transportation

Functional Unit
CARBON FOOTPRINT OF THE PIG INDUSTRY IN QUÉBEC

- Grain Production: 49%
- Manure management: 37%
- Operations on farm: 6%
- Processing: 8%

4.16 kg CO₂ e/kg carcass
WATER FOOTPRINT OF THE PIG INDUSTRY IN QUÉBEC (L/kg carcass)

- **Green water**: 199 L
  - 81 L - 41%
  - 111 L - 56%

- **Grey water**: 96 L
  - 35 L - 37%
  - 56 L - 58%

- **Bleu water (consumption)**: 103 L + 9 L (Hydro-Québec)

- 56% of the green water = 172 L/kg boneless
THANK YOU-QUESTIONS