Introduction and First Results

Farm specific strategies to reduce environmental impact by improving health, welfare and nutrition of organic pigs

C. Leeb
Amsterdam, 15th May, 2013
2nd CORE Organic II research seminar
Three Systems

75 farms in 8 countries

To identify

• animal - environment interactions in three systems

Hypothesis

• all systems are able to ensure good welfare and low environmental impact
• when well managed

Indoor with concrete outside run

Partly outdoors

Outdoors

ProPIG Amsterdam, 15.5.2013 Coreorganic2 Research Seminar
Farm specific strategies for improvement

To develop and implement

- **Farm specific strategies** to:
  - reduce environmental impacts
  - by improving health, welfare, nutrition and management of organic pigs

- To **disseminate knowledge** to national advisory bodies and farmers

1. Visit
   - Assessment
2. Visit
   - Farm plan
3. Visit
   - Assessment

Implementation of measures

ProPIG Amsterdam, 15.5.2013 Coreorganic2 Research Seminar
Expected impact

Promote sustainable development of organic pig farms towards IFOAM principles (2005)

• by providing benchmarks for health & welfare and environmental impact for different production systems (“PigSurfer”; farm planning)

• associated Codes of Practise for improvement strategies (“COPIS Health and welfare”) and “DST Environmental impact”

• As a basis to develop new and improved existing pig farming systems in future
First Results

### Protocols/PigSurfer
- Farm visit 1 & 2
- Environmental DST
- Evaluation of systems
- Training

### Table: WP project month

<table>
<thead>
<tr>
<th>WP</th>
<th>WP description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>identification / determination of improved management systems</td>
</tr>
<tr>
<td>2</td>
<td>development of assessment &amp; welfare and environmental impact</td>
</tr>
<tr>
<td>2</td>
<td>farm visit 1: assessment of animals and environment</td>
</tr>
<tr>
<td>3</td>
<td>farm visit 2: feedback implementation of improvement strategies</td>
</tr>
<tr>
<td>4</td>
<td>farm visit 3: re-assessment for evaluation of improvement strategies</td>
</tr>
<tr>
<td>3</td>
<td>evaluation of housing and management systems regarding health &amp; welfare and environmental impact</td>
</tr>
<tr>
<td>2</td>
<td>development of decision support tool for environmental impact</td>
</tr>
<tr>
<td>3</td>
<td>evaluation of improvement strategies</td>
</tr>
<tr>
<td>4</td>
<td>summary of improvement strategies for the farming system as “codes of practice”</td>
</tr>
<tr>
<td>5</td>
<td>dissemination/publication (booklet, training courses, codes of practice)</td>
</tr>
</tbody>
</table>

### Events
- Workshops (W1, W2, W3, W4, W5)
- Expert meetings (E1, E2, E3)
- International stakeholder meeting
- National stakeholder meeting

ProPIG Amsterdam, 15.5.2013 Coreorganic2 Research Seminar
WP1
Development of Protocols

Definition of systems
Assessment protocols for
- Environmental impact
- Animal health & welfare

„PigSurfer“:
SURveillance FEedback Reporting
WP 2 Training

- Rennes (May, 2012): all
- Vienna
  - 28. -29.6. 2012: AT; DE; CH
  - 16. -17.7. 2012: CZ ;IT
- Foulum
  - 10.-12. 10. 2012: DE, DK, UK

Table 1 Clinical parameters: mean (min – max) agreement [%]

<table>
<thead>
<tr>
<th>animal category</th>
<th>parameter</th>
<th>IOR 1</th>
<th>IOR 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>sows</td>
<td>N fat sows</td>
<td>80 (50 - 91)</td>
<td>88 (71 - 100)</td>
</tr>
<tr>
<td></td>
<td>N thin sows</td>
<td>58 (40 - 73)</td>
<td>61 (14 - 100)</td>
</tr>
<tr>
<td></td>
<td>N animals with ectoparasites</td>
<td>87 (45 - 100)</td>
<td>96 (71 - 100)</td>
</tr>
<tr>
<td></td>
<td>pigs requiring hospitalisation,</td>
<td>99 (90 - 100)</td>
<td>98 (86 - 100)</td>
</tr>
</tbody>
</table>
## Farm visits 1

<table>
<thead>
<tr>
<th>country</th>
<th>outdoor</th>
<th>indoor</th>
<th>in/out</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT</td>
<td>1</td>
<td>12</td>
<td>3</td>
<td>16</td>
</tr>
<tr>
<td>CH</td>
<td>0</td>
<td>5</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>CZ</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>DE</td>
<td>0</td>
<td>13</td>
<td>3</td>
<td>16</td>
</tr>
<tr>
<td>DK</td>
<td>0</td>
<td>0</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>FR</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>IT</td>
<td>7</td>
<td>2</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>UK</td>
<td>9</td>
<td>0</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>17</strong></td>
<td><strong>32</strong></td>
<td><strong>26</strong></td>
<td><strong>75</strong></td>
</tr>
</tbody>
</table>

- Completed in all countries
- Feed samples taken
Farm visits 2

Ongoing in UK and DK

Farm plans for participating farmers

- Including benchmarking

<table>
<thead>
<tr>
<th>20% best farms</th>
<th>20% worst farms</th>
</tr>
</thead>
<tbody>
<tr>
<td>52.5 - 41.6 %</td>
<td>27.8 - 11.6 %</td>
</tr>
<tr>
<td>41.5 - 38.5 %</td>
<td>31.2 %</td>
</tr>
<tr>
<td>38.5 - 34.2 %</td>
<td></td>
</tr>
<tr>
<td>34.2 - 27.8 %</td>
<td></td>
</tr>
</tbody>
</table>

- Setting goals and measures
- Soil sampling in selected farms

ProPIG Amsterdam, 15.5.2013 Coreorganic II Research Seminar
WP 3

- Automatic recording and feedback tool (handheld benchmarking system) = “PigSurfer”
- Currently under development:
  - “COIS”
  - Decision support tool for reducing environmental impacts
Dissemination

National courses/workshops for farmers and advisors

- Introduction to ProPIG / Recruitment
- **Booklet** for organic farmers/ advisors on “Codes of practice for improvement strategies” (“COIS”)
- Decision support tool for reducing environmental impacts (“EDST”)
Publications

– **Decision support tool** for reducing environmental impacts

– **Effect of the three housing/outdoor systems on**
  – environmental impacts across countries and climate zones
  – health, welfare and productivity of organic European pig farms

– **Association** between animal health and welfare and the environmental impacts in the three different housing/outdoor systems

– **Improvement strategies** for health, welfare and environmental impact on organic pig farms across Europe
Management

Amsterdam, 15th May, 2013
2nd CORE Organic II research seminar
Communication

• CoreOrganic2 Website
  – Would be useful to use also as internal platform to upload documents
  – Also as platform to provide info/documents after project end

• Dropbox

• Skype Meetings with WP leaders

• Telephone!! email

• Regular Workshops – at least three days
Experiences

• What has been good and bad experiences compared to what you are used to from national or EU projects

• Very different budgets/farm numbers across countries
Funding and Responsibilities

- Clear responsibilities and allocation of funding – should already be in proposal (different opinions, who has to do the work)
- But- also some flexibility (also across countries) necessary, if additional work seems necessary/one partner offers to carry out the work
- PhD is a good way of feeling responsible – Doktoral college? as idea for future
Thank you!