Options for control of main risks identified in EFSA opinion

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Purpose of this presentation

- Ways forward in order to obtain a more risk-based “meat inspection” in pigs based
- Provide input for the discussion this afternoon
Main risks identified in pigs

- **High risk:** *Salmonella* spp.
- **Medium risk:**
  - *Yersinia enterocolitica*,
  - *Toxoplasma gondii*,
  - *Trichinella* spp.
- **Others:** low relevance
Developing a risk-based meat inspection, considering:

- The EFSA opinion including harmonised epidemiological indicators
- The 2011 questionnaire on review of meat inspection
- Conclusions of previous Round table Conferences
- The 2009 Hygiene Package evaluation
Harmonised Epidemiological Indicators (HEI)

- The epidemiological information to be used for the risk analysis

- Examples *Salmonella*: Prevalence based on
  - faeces samples on farm
  - carcase swabs in slaughterhouse
  - serological tests

- Examples *Trichinella*:
  - conditions for controlled housing on farms
  - digestion tests in slaughterhouse
Potential general approach

- Risk analysis based on HEI
  - High or unknown risk: High level of official controls with possible restrictions for human consumption
  - Low risk: Competent authority may reduce monitoring (reward)
Table 14: Proposed harmonised epidemiological indicators for pigs

<table>
<thead>
<tr>
<th>Indicators (animal/ food category/other)</th>
<th>Food chain stage</th>
<th>Analytical /diagnostic method</th>
<th>Specimen</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Salmonella</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HEI 1 <em>Salmonella</em> in breeding pigs</td>
<td>Farm</td>
<td>Microbiology (detection and serotyping)</td>
<td>Pooled faeces sample</td>
</tr>
<tr>
<td>HEI 2 <em>Salmonella</em> in fattening pigs prior to slaughter</td>
<td>Farm</td>
<td>Microbiology (detection and serotyping)</td>
<td>Pooled faeces sample</td>
</tr>
<tr>
<td>HEI 6 <em>Salmonella</em> in fattening pigs – carcasses after slaughter process before chilling</td>
<td>Slaughterhouse</td>
<td>Microbiology (detection and serotyping)</td>
<td>Carcase swabs</td>
</tr>
</tbody>
</table>
Developing a risk-based meat inspection for *Salmonella* (1)

- Proposed HEI: (herd) prevalence based on *Salmonella* process hygiene criterion on carcases

- Maintain existing criterion:
  - 5 pig carcases a week (n=50 over 10 weeks)
  - In case of more than 10% positives (c=5), improvements are required to slaughter hygiene, process controls, origin of pigs and biosecurity of the farm of origin

- But enhanced and herd-based sampling
  - Increase of sample frequency e.g. from 5 to 50 samples a week with registration of herd of origin
  - When the sampling results are < 10% positives (at herd level, build up historically) the sampling frequency can be reduced for that herd or sampling can be targeted towards other herds
Developing a risk-based meat inspection for *Salmonella* (2)

- **Optimal use of Food Chain Information:**
  - Informing the herd on outcome carcase sampling to build up a herd status
  - Informing the slaughterhouse on the herd status

- **Consideration of alternative equivalent monitoring at herds:**
  - Faecal samples
  - Serology

- **Sampling cost may create incentive**
Developing a risk-based meat inspection for *Salmonella* (3)

- Responsibility and supervision by Competent authorities
- Additional measures
  - Separate slaughter of low risk herds
  - Specific slaughter procedures for high risk/unknown risk herds
  - Decontamination of all pigs when risk is high/unknown
  - Deletion of routine palpation and incision
### HEI *Trichinella*

<table>
<thead>
<tr>
<th>HEI</th>
<th>Description</th>
<th>Location</th>
<th>Activity</th>
<th>Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><em>Trichinella</em> in free-range and backyard pigs (both fattening and breeding pigs)</td>
<td>Slaughterhouse</td>
<td>Digestion</td>
<td>Meat</td>
</tr>
<tr>
<td>2</td>
<td><em>Trichinella</em> in pigs from non-officially recognised controlled housing conditions (both fattening and breeding pigs)</td>
<td>Slaughterhouse</td>
<td>Digestion</td>
<td>Meat</td>
</tr>
<tr>
<td>3</td>
<td>Farms with officially recognised controlled housing conditions and <em>Trichinella</em> free status</td>
<td>Farm</td>
<td>Auditing</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>
Developing a risk-based meat inspection for *Trichinella*

- **Defining low risk based on prevalence in**
  - herd/compartment and application of controlled housing conditions, or
  - Country including wildlife

- **Low risk: CA may decide**
  - to reduce testing or control of fattening pigs (from controlled housing farms)
  - Keep testing of sentinel animals

- **High/unknown risk: systematic testing or treatment**
Developing a risk-based meat inspection for *Trichinella*

- The need for a revision of Regulation (EC) No 2075/2005 may be considered
- Agreement needed in international context on HEI:
  - OIE guidelines: pre-harvest conditions
  - Codex guidance: linking to post-harvest testing or control
Developing a risk-based meat inspection for *Yersinia*

- Lack of monitoring data e.g.
  - Only 7 MS reported sampling in pork
  - Only 4 MS reported sampling in pigs

- HEI?

- Similar pork safety assurance measures as *Salmonella*

- Priority of *Salmonella* control may be considered
Developing a risk-based meat inspection for *Toxoplasma*

- Limited information on human cases and importance of different sources (pork compared to small ruminants and cats)
- No practical tests available for control at slaughter
- Screening of herds by serology is an option to differentiate high and low risk herds: Infected herds: freezing
- Infection of herds linked to on-farm situations similar to *Trichinella* (outdoor access, biosecurity, rodent control, exclusion of cats)
Summary

- High risk *Salmonella*
- Tools are available to differentiate high and low risk based on HEI for *Salmonella* and *Trichinella*
- A risk-based meat inspection / control is possible for these two hazards
- Additional monitoring data and effect of *Salmonella/Trichinella* approach on *Toxoplasma* and *Yersinia* by pork may be considered before considering specific controls
This afternoon:

Three panel discussions:

- Bacteriological risks (Salmonella and Yersinia) in pig meat inspection
- Parasitological risks (Trichinella and Toxoplasma) in pig meat inspection
- Consequences of the options for Tuberculosis and Brucellosis control
THANK YOU FOR YOUR ATTENTION
AND ENJOY YOUR LUNCH