Maîtrise de la sécurité alimentaire des circuits courts : l’expérience de la Cellule Qualité des Produits fermiers (CQPF) en accompagnement des producteurs en Wallonie

Control of the food safety of the short path: the experience of the Quality Cell of Farm Products supporting the producers in Wallonia

Prof Marianne Sindic
T. Godrie, J. De Laubier, S. Di Tanna, N. Zdanov
CQPF established in 2006
Defined missions

• help farmers to bring the quality of their products into compliance with legal and/or market requirements. Food safety is considered as a priority

• “one-stop shop” approach: find in one single place answers to any type of question about a diversification activity or project
Coordination cell (ULG-GxABT)

- Food safety/hygiene support
  - ULG-GxABT
- Economic support
  - ACW
- Technological support
  - CARAH
  - EPASC
Producer Needs
Regulatory requirements
Agriculture and rural development in Wallonia

Human resources: interaction of skills
Financial resources: Wallonia and own financing
Material resources: production workshops, analytical subcontractors

Acquiring: Visits, training sessions, fairs, ACW members, AFSCA, word-of-mouth
R&D: posters, thesis, vulgarisation
Support and follow-up, training,

Information management: databases, client files, website, meetings, regulatory surveillance

Coordination, 3 management committees, missions defined for each pole, external representation

Strengthening:
Follow-up of client relationship,
External representation, recognized expertise

Improvements: satisfaction survey, indicators

Producer needs met
Starting of new diversification projects,
Maintenance of the fabric of rural life
## Support and follow-up, training

<table>
<thead>
<tr>
<th>Economic support</th>
<th>Design and start-up</th>
<th>Skills development</th>
<th>Support and follow-up</th>
<th>Strengthening and problem solving</th>
<th>Development of specificity and quality of products</th>
</tr>
</thead>
</table>
| - Administrative and fiscal requirements
- Profitability (project) | - Training: Launching a diversification project? | Feasibility studies Administrative follow-up, financing files, signage,... | Product promotion, project extension | Organising competitions |

| Technological support | - Profitability (product)
- Council in equipment | - Training: Technology of dairy products: theory and practice | Follow-up of manufacturing, rent of workshop... | Product extension, Council in cheese ripening, solve manufacturing problems | Recipe improvements |

| Food safety/hygiene support | - Council in infrastructure | - Information and training on basics of food hygiene, food safety assurance systems, regulation, GHP... | Implementation of food safety assurance systems | Solve hygiene problems, follow-up through microbiological analyses | |
Target audience: farmers & artisan producers

Total producers: 970

Sectors of activity:

- Laitier - Dairy: 71%
- Diverse (distribution, horeca, vin, huiles): 9%
- Viande - Meat: 7%
- Fruits et Légumes - Fruits and Vegetables: 4%
- Indéterminé - Indeterminate: 3%
- Volaille - Poultry: 2%
- Mixte - Combined Activities: 1%
- Heliciculture: 1%
- Poisson - Fishery: 1%
- Miel, Oeufs, Lapins - Honey, Eggs, Rabbits: 1%

Other activities: 0%
Local food production and retail peculiarities and difficulties

- Craft production system (no automation), limited volumes
- A desire to escape from standardized industrial products
- Small number of employees -> AM 24/10/2005
- Limited human resources and many skills needed to launch diversification activities: administrative, financial, technological, food hygiene...
- Limited financial resources (no QA manager, in-house laboratory...)
• Food safety management is mandatory since 2003 while craft productions are ancestral ->
  – misunderstanding due to new constraints,
  – many discouraged producers have ceased their activity
  – higher investments are needed for start-up, it becomes more and more difficult to retrieve the original investments (because of the limited volumes of production) : start-up 60 000 to 120 000 €

• Direct relationship with consumer

• No or few intermediaries, short production chain, less complex traceability
Self monitoring: what does it cost?

Example: farms producing 3 dairy products, using well water
« Worst case » = following European and Belgian regulation:

Total analytical costs (only): 2780 €/year

Producer’s perception of these costs:
= 2 monthly salaries
= 185 kg hard cheese = +/- 1850 litters transformed milk
Brakes to short path

- Compliance with health (AFSCA)
- Training needs (technical, BPH, marketing, ...)
- Investment (local, equipment, ...)
- Human resources (work organization)
- Marketing of the product
Analytical results
Analytical results

• Self monitoring results
• Context : EU regulation 2073/2005 criteria
• 6 year period : 2006-2012
• Accredited analyses performed in FASFC approved laboratories
<table>
<thead>
<tr>
<th>Product</th>
<th>Parameters</th>
<th>Samples number</th>
<th>Farms number</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BUTTER</strong></td>
<td>Listeria monocytogenes</td>
<td>518</td>
<td>141</td>
</tr>
<tr>
<td></td>
<td>Escherichia coli</td>
<td>526</td>
<td>147</td>
</tr>
<tr>
<td></td>
<td>Salmonella spp.</td>
<td>518</td>
<td>140</td>
</tr>
<tr>
<td><strong>CHEESE</strong></td>
<td>Listeria monocytogenes</td>
<td>474</td>
<td>101</td>
</tr>
<tr>
<td></td>
<td>Escherichia coli</td>
<td>413</td>
<td>94</td>
</tr>
<tr>
<td></td>
<td>Salmonella spp.</td>
<td>429</td>
<td>92</td>
</tr>
<tr>
<td></td>
<td>Coagulase positive staphylococci</td>
<td>476</td>
<td>95</td>
</tr>
<tr>
<td><strong>YOGHURT</strong></td>
<td>Listeria monocytogenes</td>
<td>135</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>Enterobacteriaceae</td>
<td>128</td>
<td>53</td>
</tr>
<tr>
<td><strong>MEAT COOKED PRODUCTS</strong></td>
<td>The total count of microorganisms</td>
<td>66</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Listeria monocytogenes</td>
<td>79</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Escherichia coli</td>
<td>64</td>
<td>14</td>
</tr>
</tbody>
</table>
Butter

Listeria monocytogenes

- Absence: 70.1%
- < 10: 19.7%
- 10 et < 100: 10.0%
- > 100: 0.2%

Salmonella spp.

- Absence: 100.0%

Escherichia coli

- < 10: 6.8%
- 10 - < 100: 18.2%
- 100 - < 1.000: 16.5%
- 1.000 - < 10.000: 18.2%
- 10.000 - < 100.000: 34.5%
- > 100.000: 2.1%
Cheese

Listeria monocytogenes
- Absence: 87.8%
- < 10: 10.3%
- 10-100: 1.3%
- > 100: 0.6%

Salmonella spp.
- Absence: 100.0%

Escherichia coli
- < 100: 60%
- 100-1,000: 13%
- 1,000-10,000: 7%
- 10,000-<100,000: 5%
- > 100,000: 15%

Coagulase positive staphylococci
- < 100: 67%
- 100-1,000: 12%
- 1,000-10,000: 10%
- 10,000-<100,000: 6%
- >100,000: 5%
Yoghurt

Listeria monocytogenes
- Absence: 7%
- < 10: 93%

Enterobacteriaceae
- < 10: 77.3%
- < 100: 9.4%
- > 100: 13.3%
Meat cooked products

Listeria monocytogenes

- Absence: 90%
- Présence: 10%
## Results:

**Listeria monocytogenes (food safety criteria)**

<table>
<thead>
<tr>
<th>Products</th>
<th>Conformity of production criteria (absence in 25 grams)</th>
<th>Conformity of distribution criteria (&lt; 100)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butter</td>
<td>70,1%</td>
<td>99,8%</td>
</tr>
<tr>
<td>Cheese</td>
<td>87,8%</td>
<td>99,4%</td>
</tr>
<tr>
<td>Yoghurt</td>
<td>93%</td>
<td>100%</td>
</tr>
</tbody>
</table>

- Frequent exceeding of the transformation criteria
- Rare exceeding of the 100 CFU
### Results

**E. coli (process hygiene criteria)**

<table>
<thead>
<tr>
<th>Products</th>
<th>Conformity Reg. 2073/2005 (m=10; M=100)</th>
<th>Conformity AR 3/09/2000 (≤ 1000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butter</td>
<td>52.7%</td>
<td>69.2%</td>
</tr>
</tbody>
</table>

**Salmonella spp. (food safety criteria)**

<table>
<thead>
<tr>
<th>Products</th>
<th>Conformity - Reg. 2073/2005 (Absence/25g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butter</td>
<td>100%</td>
</tr>
<tr>
<td>Cheese</td>
<td>100%</td>
</tr>
</tbody>
</table>
## Results

### Coagulase positive staphylococci

<table>
<thead>
<tr>
<th>Products</th>
<th>Conformity Reg. 2073/2005 ($m=10^4$; $M=10^5$)</th>
<th>Conformity enterotoxin (Absence/25g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cheese</td>
<td>95%</td>
<td>100%</td>
</tr>
</tbody>
</table>

### Enterobacteriaceae (process hygiene criteria)

<table>
<thead>
<tr>
<th>Products</th>
<th>Conformity Reg. 2073/2005 (10 cfu)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yoghurt</td>
<td>77.3%</td>
</tr>
</tbody>
</table>
# Results

**Meat cooked product**

<table>
<thead>
<tr>
<th>Micro-organism</th>
<th>Criteria Reg. 2073/2005</th>
<th>Conformity (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listeria monocytogenes</td>
<td>Production: Absence/25g Distribution: 100cfu/g</td>
<td>Production: 90% Distribution: 100%</td>
</tr>
</tbody>
</table>
Conclusion

The ultimate purpose:

– Allow producers to maintain their activities
– Allow the development of local and traditional productions
Conclusion

• Organisms such as CQPF are useful to help producers during all stages of their projects:
  – start up
  – implementation of GHP and HACCP procedures
  – when microbiological problems appear
  – Improve their productions

• Recognized action on the field
For further information....

« vade-mecum de la valorisation des produits agricoles et de leur commercialisation en circuits courts »

Via the website [www.cqpf.be](http://www.cqpf.be)

Or from

Contact Us:
081/62.23.17
infos@cqpf.be

Visit our website:
www.cqpf.be