Quality and safety of products of animal origin and consumer attitudes: Cyprus perspective

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History

- Eteo – Cypriots: First inhabitants in Cyprus before 7000 BC
- Hellenize of island by Mycynes’ civilization 13-12 century BC
- Roman Period 58 BC – 330 AD
- Byzantine Period 330 – 1191 AD
  (Arab conquest 668 – 958 AD)
- Crusades – Lusignan Period 1192–1489 AD
- Venetian Period 1489 – 1571 AD
- Ottoman conquest 1571 – 1878 AD
- English conquest 1878 – 1960AD
- Cyprus Independence 1960AD
Population (2008)

- 796 000 (Government controlled area)
- 885 600 inhabitants
  - 75.5% Greek Cypriot community
  - 10% Turkish Cypriot community
  - 14.5% Foreign residents
- Religious groups which belong to Greek Cypriot community (% of total population)
  - 0.3% Armenians
  - 0.5% Maronites
  - 0.1% Latins
Cypriots’ diet

- Based on Mediterranean diet
- Comprised by animal origin products including traditional products, fresh fruits and vegetables, dry legumes, olive oil
- Influenced by various civilizations
- Recently influenced by modern western cuisine
Consumers’ trends

- Organic foods
- Processed “luxury foods”
- Nutrient and “bioactive” supplements
- Exotic food from outside the EU
- Prescribed or self prescribed foods
- Eating out and takeaways
- Bottled water
- Alcohol and other mood modifying substances

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Consumers’ attitude towards quality

- Safety part of quality
- Quality ensures health, manners and customs of Cyprus
- Preservation of manners and customs
  - consumption of traditional products (e.g. sausages, lountza, seftalies, halloumi)
- Use of traditional methods for the production of traditional products
  - Such establishments are usually located in villages
  - Upgraded after EU enrollment
Tradition and ethics

- Ethical issues include local or regional production, fair trade, animal welfare
- Cypriots’ beliefs are associated with quality and safety as “pure” or natural products, as produced without using GM technology
- Technological know-how of traditional products is due the Mediterranean Climate of Cyprus (wet winters, hot & dry summers)
  - determine products’ quality & safety, eg. wine

EU Cyprus

- EU Member State: May 2004
- Adoption of EU legislation (New Hygiene Package) in 2006
- Enforcement of EU requirements at all of the existing establishments
- Only a number of the establishments continued operation
  - eg. Slaughterhouses: 55 out of 59 were forced to stop their operation
Establishments 2010 (I)

- Slaughterhouses: 5
- Red meat cutting plants: 49
- Poultry slaughterhouses: 22
- Lagomorphs slaughterhouses: 2
- Poultry and lagomorphs cutting plants: 13
- Minced meat establishments: 29
Establishments 2010 (II)

- Meat preparation establishments: 64
- Meat products establishments: 35
- Fish and fishery products establishments: 30
- Butcheries: 663
- Dairies: 83
- Registered farms producing dairy products for direct supply to the final consumer (approximately 1000)

Per head annual consumption of products (2008)

- Bovine: 6.7kg
- Pork: 53kg
- Poultry: 37kg
- Sheep and goat: 11kg
- Fish: 18.1kg
- Local meat products and meat preparation products: 12kg
- Imported meat products and meat preparation products: 0.4kg
- Local dairy products: 12kg
- Imported dairy products: 10.7kg
Per head annual consumption of meat and meat products (2008)

Wholesale level

- Reg. (EC) No. 2073/2005
- Production of products in approved establishments
- Each establishment approved by Competent Authority
- Each product approved by Competent Authority
Retail level (raw products)

- Reg. (EC) No. 852/2004
- National measures
- Butcheries
  - registered
  - 663 in total
  - 300 with separate room for the production of meat products and meat preparation products intended to be consumed as cooked

Meat preparation products

- Sieftalia (minced meat, omentum, onion, parsley, cinnamon, salt, pepper)
- Gyros (beef or chicken minced meat, herbs, salt, pepper)
Traditional meat products

- Tsamarella (goat meat, salt, oregano)
- Lountza (pork fillet matured in wine)
- Pastourmas (spicy sausages)
- Loukanika (wine or air sausages)
- Zalatina (portions of pork meat and by-products in fat)
- Hiromeri (pork leg fillet matured in wine)
Dairy products

- Halloumi cheese (heating in 85-90°C for 30 min, preserved in brine)
- Anari cheese (heating whey 80-85°C)
- Cheese of Paphos (semi soft cheese, sheep & goat milk)
- Flaouna cheese (soft cheese, sheep & goat milk, during Easter period)
- Trachanas (sheep milk, goat milk, cow milk, wheat, salt)
Establishments’ self-controls

- Implementation of the New Hygiene Package
- Safety checks
- Quality checks
- Implementation of HACCP, ISO:22000 at approved establishments
- Implementation of generic plan based on HACCP principles at butcheries
- Laboratory checks on final products

HACCP consideration

- Obligation from legislation
- Increase in safety of the products
- Commercial advantage to the products produced
- Customer pressure

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Excuses to recommendations?

- Cost (consultant, samplings and analysis of products, training …)
- Lack of commitment of FBO (Food Business Operator)
- Level of education of FBO (old small butcheries in distant villages)
- Lack of staff resources
- Lack of awareness of FBO
- Old business

*Always consider what FBO can do!*

Official controls

- By the Competent Authorities
- Verify the existing self-controls of the establishments and butcheries
- Do not substitute self-controls
- Include sampling and analysis of the final products
- From farm to fork
Food of animal origin

- Veterinary Services:
  - Establishments producing food of animal origin at wholesale level
  - Butcheries at retail level
  - Food of animal origin from EU and third countries
  - Exception: Honey and Ice-cream
  - From fork to farm

Program

- 3 year multiannual national control program
- Prepared by Veterinary Public Health Division of Veterinary Services
- Based on risk assessment
- Includes inspections’, samplings’ and analysis program
- Inspections: minimum 2 / year
- Samplings:
  - minimum 2 / year in approved establishments
  - 1 / year on the final products at butcheries producing meat products and meat preparation products
## Inspections in numbers (2008)

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<tr>
<th></th>
<th>no. of inspections</th>
<th>no. of programmed inspections</th>
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<tbody>
<tr>
<td>Slaughterhouses</td>
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<tr>
<td>R. meat cutting plants</td>
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<td>92</td>
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<tr>
<td>Minced meat est.</td>
<td>55</td>
<td>52</td>
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<tr>
<td>Meat prod. Est</td>
<td>197</td>
<td>224</td>
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<tr>
<td>Meat pr. prod. est</td>
<td>178</td>
<td>268</td>
</tr>
<tr>
<td>Fish &amp; fish. prod. est</td>
<td>58</td>
<td>54</td>
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<tr>
<td>Lagomorph sl.</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Poultry sl.</td>
<td>58</td>
<td>44</td>
</tr>
<tr>
<td>Poultry &amp; lag. sl.</td>
<td>19</td>
<td>24</td>
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<tr>
<td>Dairies</td>
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<td>168</td>
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<tr>
<td>Butcheries</td>
<td>1006</td>
<td>1274</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1861</strong></td>
<td><strong>2212</strong></td>
</tr>
</tbody>
</table>
Non-compliance: establishments

1. Suspension of operation for up to 4 days
2. Second suspension of operation for up to 4 days
3. Suspension or withdrawal of the establishment’s approval or registration
4. Charge of penal prosecution
5. Imposition of administrative fine (2010)
Non-compliance: Food

- Withdrawal / Recall
- Seizure
- Confiscation
- Destruction or re-dispatch (FBO’s decision / information to Competent Authority of the country of origin)
- In accordance to RASFF
- Public announcements

Reporting systems – Verification of controls

- Multiannual National Control Program
- Annual reports
  - Inspections, prosecutions, suspensions of operations, samplings, confiscations etc
  - Upgraded in 2010 in order to include number and kind of non-compliance for each establishment
- Inspections by the FVO
Challenges

- Lack of microbiological criteria for final products in red meat cutting plants
- Lack of microbiological criteria for surface disinfection verification
- Lack of unified durability or expiry dates
- Consideration of E. coli as hygiene indicator → E. coli O157:H7?

Thank you for your attention!