Idiazabal Cheese: A product linked to the land

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Outline

• Introduction:
  – Location & Sheep population
  – The Product: Sheep Cheese

• Protection Denomination of Origen “Idiazabal” Cheese
  – Objective
  – Functions
  – Organizational Structure
  – Financial aspects
  – Innovation aspects

• Results

• Conclusions
<table>
<thead>
<tr>
<th></th>
<th>Surface (km(^2))</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basque Country</td>
<td>7,200</td>
<td>2,184,000</td>
</tr>
<tr>
<td>Navarre</td>
<td>10,400</td>
<td>642,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>17,600</strong></td>
<td><strong>2,826,000</strong></td>
</tr>
</tbody>
</table>
Local Sheep Breeds
## Sheep population

<table>
<thead>
<tr>
<th>Breed</th>
<th>Basque Country</th>
<th>Navarre</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sheep</td>
<td>Flocks</td>
</tr>
<tr>
<td>Latxa Blonde Faced</td>
<td>100,088</td>
<td>2,461</td>
</tr>
<tr>
<td>Latxa Black Faced</td>
<td>147,207</td>
<td>3,503</td>
</tr>
<tr>
<td>Carranzana Blonde Faced</td>
<td>10,720</td>
<td>601</td>
</tr>
<tr>
<td>Carranzana Black Faced</td>
<td>250</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>258,265</strong></td>
<td><strong>6,570</strong></td>
</tr>
</tbody>
</table>
Breed characteristics

- Live Weight:
  - ♀ 50 - 65 kg
  - ♂ 75 - 90 kg

- Rusticity:
  - Very well adapted to local conditions
  - Seasonal reproductive pattern

- Breeding program (since 1982)
  - Based on pure breed selection
  - Production traits: milk yield and composition
  - Functional traits: Udder morphology
Breed characteristics

-Productive level

  - Prolificacy: 1.1 - 1.4 lambs
  - Lactation length: 163 days
  - Milk yield: Total = 197 litres
    Milked = 163 litres
The Product: Main Features

- Aged cheese
  - Ripening > 2 months
- Whole Raw milk (non pasteurized)
- Pressed paste
- Enzymatic coagulation
  - Lamb rennet
- Weight: 1-3 kg.
- Smoked / not smoked
Since 1987 ...

http://www.doidiazabal.com/
• Objectives

  • Keep a traditional product linked to the territory through the local breeds and production system based in the use of natural resources

    Positive externalities

  • To promote the product, improve the commercialization and introduction to the market

    Product differentiation
Regulatory council PDO: Functions

- Livest. farming system
- Product & procedures
- Label

- Procedure rules
- Quality controls
PDO: Promotion functions

– Traditional farming systems:
  • Local Breeds: Latxa and Carranzana
    – Feeding system: pasture based & grazing
  • Geographical production area
    – Basque Country and Navarre

– the adoption of practices and techniques aiming to increase the productivity of the flocks
– The quality of the milk and cheese
– Training and education activities
– R+D activities
PDO: certification functions

1988: Red Label

Number
1988: Label

1992: Casein plate
Traceability

2008: hologram label - counter label
Certification: higher security standards
PDO: certification functions

1. Inspection
   - **What**: Checklist with farming and transformation conditions
   - **Who**: HAZI Certification (accredited, 171020)
   - **When**
     a) Cheese producers: all > once / year
     b) Milk producers: some and sometimes
     c) Sales points: randomly

**Farms and Cheese-makers:**
- Sheep breeds
- Facilities
- Procedures
- Sanitary and hygienic conditions
- Identification of batches …

**Sales points** (shops, markets, supermarkets, etc.)
- Utilisation of the label
- Conditions of the cheese …
2. **Administrative Control**: trace and check records

- **Data sources**
  - Flock size official records
  - Farmer: Monthly sold milk records
  - Industry: Monthly purchased milk records
  - Cheese production records. Stocks available.

- **Five levels of control**
  1. Average milk yield per sheep (per year)
     - Flock size (number of sheep) - Milk produced per farm
  2. Litres of milk produced/sold per farm – Litres of milk purchased by industry
  3. Litres of milk prod. / purchased – litres transformed into cheese
  4. Total milk prod. / purchased - Kg of cheese certified
  5. Number of cheeses – number of labels, casein plates and hologram labels
3. **Analytical procedures**
   
a) Physical-chemical & microbiological analysis:
   
   **Lactological Lab. of Lekunberri**
   
   ≥ once / cheese-maker / year

b) Sensorial analysis:
   
   **Lab. of Sensorial analysis, Univ. Basque Country**
   
   ≥ 3 times / cheese-maker / year
PDO: sensorial analysis

1. **Shape**
   - Cylindrical: Height=8-12 cm; diameter=10-30 cm.
   - Weight: 1-3 kg.
   - Rounded or edged corners (depending on size)
   - Flat face; heel slightly convex

2. **Rind**
   - Hard and flat
   - Homogeneous colour (from pale yellow, gray-white, to dark brown)
   - With slight signs of the wiper used

3. **Paste Colour**
   - Dull & Homogeneous
   - From ivory to pale yellow

4. **Eyes**
   - Scarce and randomly distributed
   - Irregular shape
   - Very small (smaller than a rice grain)
   - No cracks
PDO: sensorial panel

5. Texture
   • Medium elasticity
   • Medium firmness
   • Medium granularity

6. Flavour
   • Very specific:
     • Mature sheep milk
     • Slight taste of natural rennet
     • Clean, consistent and penetrating
     • Slightly spicy
     • No bitterness
     • Medium intensity salted
     • Smoked: medium intensity to smoke

7. Aftertaste
   • Continuous
   • Persistent
   • Pronounced
PDO: sensorial panel

Externally accredited method (ENAC, nº 472/LE1020)

Compulsory to be certified under PDO

Reasons:
- Assure differentiated characteristics of Idiazabal PDO Cheese
- Fraud detection
- Improve cheese quality
PDO: Innovation aspects

• Accreditation of certification procedures:
  – including sensorial analysis
• Casein plate: traceability
• Counter label: higher security standards
• Research agreements:
  – detection in cheese of milk produced by other sheep breeds
  – Use of autochthonous starters
  – Transformation process (to eliminate some faults)
Regulatory Council - Composition

President

2

Own milk

2

< 100 ton / year

2

> 100 ton / year

2

< 10,000 l.

2

10,000 – 20,000 l.

2

> 20,000 l.

Cheese Makers

Industry

Milk producers

FARMERS
**Regulatory Council - Composition**

- **Voice (not vote)**
  - 1 Spanish Government
  - 1 Basque Government
  - 1 Navarre Government

- **President**

- **Own milk**
  - < 100 ton/year
  - > 100 ton/year

- **Milk producers**
  - < 10,000 l.
  - 10,000 – 20,000 l.
  - > 20,000 l.

- **Cheese Makers**
  - < 100 ton/year

- **Industry**
  - > 100 ton/year

- **FARMERS**
  - Own milk
Regulatory Council - Composition

• Human Resources
  – 1 general manager
  – 2 administrative
PDO: Financing

• 50% = farmers (*parafiscal taxes or levies*)
  – Milk producers:
    • 1% of price milk = 0.006 €/l
  – Cheese makers:
    • 1% of cheese price = 0.026 €/l (updated annually)
    • Twice the price of the counter-label (label + management costs)

• 50% = Administration Support
  – Basque Government
  – Navarre Government
  – Spanish Ministry
RESULTS: IMPACT OF THE P.D.O.
Sheep breeds

- **Dairy Sheep**: 
  - 86.5% Local Breeds: 
  - 1.5% Foreign Breeds 
  - Assaf (95% of FB)

- **Meat Sheep**: 
  - 6.6% pure breeds 
  - 5.4% Crossbreeds
Milk and cheese production

![Graph showing milk and cheese production trends from 1995 to 2011. The graph plots milk production in 10^3 liters (y-axis) against years (x-axis) and cheese production in tons (y-axis) against years (x-axis).]
Number of flocks and cheese makers

![Graph showing the number of flocks and cheese makers from 1995 to 2011. The graph indicates a steady increase in both categories over the years.](image-url)
### Home made vs industrial cheese

<table>
<thead>
<tr>
<th>Type of Cheese Producer</th>
<th>2001</th>
<th>2004</th>
<th>2007</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 100 ton / year</td>
<td>60.50</td>
<td>53.69</td>
<td>53.13</td>
<td>45.36</td>
<td>41.22</td>
</tr>
<tr>
<td>&lt; 100 ton / year</td>
<td>15.86</td>
<td>12.81</td>
<td>13.89</td>
<td>19.84</td>
<td>16.10</td>
</tr>
<tr>
<td>Only with proper milk</td>
<td>23.64</td>
<td>33.50</td>
<td>32.98</td>
<td>34.80</td>
<td>42.67</td>
</tr>
</tbody>
</table>

![Bar chart showing percentage of cheese producers by type over years]

- **Only with proper milk**
- **< 100 ton / year**
- **> 100 ton / year**
Economical assessment show that on farm cheese-making can be crucial to assure the profitability of Latxa breed dairy sheep flocks …

… + Productivity + Efficiency + Marketing….
International Prestige


World Cheese Awards:

- 2008: 26 medals (6 gold)
- 2009: 28 medals (11 gold)
- 2010: 41 medals (12 gold; 2 super-gold)
- 2011: 44 medals (7 gold, 2 super-gold)

Differentiated types

- Black, Green, Organic
Conclusions

- PDO: Essential to maintain the breed and production system
  - Price perceived by milk producers within the PDO are paid +30 cts / litre (≈ 1 €/l.) in comparison to non differentiated milk (≈ 0.7 € l.)

- Efficient barrier to introduction of foreign breeds

- High quality product and prestige

- Challenges to be faced
Many Thanks!