CROATIAN AGRICULTURAL AGENCY
Croatian Agricultural Agency

- The Croatian Agricultural Agency was established in 1994 by the Government of the Republic of Croatia (Croatian Livestock Selection Centre)
History

1913. Union of livestock breeders associations

1957. Union of livestock breeders associations has been adjoined to Livestock cooperative alliance,

1960. Established Livestock Selection Centre of Croatia,

1975. Established Agricultural centre of Croatia, with Livestock selection centre as a sub-division,

1994. By the Government decision it is established Croatian Livestock Selection Centre as an independent institution

2003. Changes name into the Croatian Livestock Centre

2009. Changes name to Croatian Agricultural Agency
Croatian Agricultural Agency

- CAA as nonprofit state institution for its activities reports to the Board council
- Board council has three members, nominated by the Ministry of agriculture, fisheries and rural development
Županijski ured I Hrvatske poljoprivredne agencije + unutaržupanijske ispostave
Savjetovanje uzgajivača pri podnoženju zahtjeva za poticajima, ažuriranje LPIS baze podataka, ažuriranje upisnika poljoprivrednih gospodarstava, ažuriranje jedinstvenih registara domaćih životinja (provedba sustava označavanja-lokalno), kontrola proizvodnih osobina svih vrsta stoke, ostali administrativni ili terenski poslovi po potrebi.
# Employees (360)

<table>
<thead>
<tr>
<th>Location</th>
<th>No. of employees</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central office in Križevci / Zagreb</td>
<td>80</td>
<td>high education – majority in agriculture</td>
</tr>
<tr>
<td>Laboratory for milk quality control</td>
<td>45</td>
<td>different qualifications</td>
</tr>
<tr>
<td>Laboratory for feed analysis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27 Regional offices</td>
<td>235</td>
<td>B.Sc. and technicians in agriculture</td>
</tr>
</tbody>
</table>
Financing

• From the state budget 20 - 25%

• Own incomes 75-80 %
The main tasks

• Register of farmers / farms,
• Identification of land parcels (LPIS),
• Animal identification and registration,
• Quality control of agricultural products,
• Development of agricultural production:
  – Assistance in founding of breeding associations,
  – Organization of trade of breeding (herd book) animals,
  – Organization of fairs and exhibitions of livestock and livestock products,
  – Care for breeding programs for certain species and breeds,
  – Organization of progeny and performance test for breeding animals,
  – Breeding value estimation for herd book animals,
  – Protection of autochthonous and endangered breeds of domestic animals,
  – Development programs in livestock production, and control in realization,
  – Technological and investment studies in animal production, assistance to farmers in their realization,
  – Dissemination of information and education of farmers,
  – Professional and economical analyses and other activities that contribute to development of agricultural production,
• Assistance to farmers in application for subsidies and funds in agriculture,
• Participation in CMO in livestock production,
• Activities and tasks according to specific legislation
Animal identification
Animal registry

- Unique system of animal identification and registration according EU norms:
  - Cattle – since 2003 year
  - Sheep and goats – since 2008
  - Pigs – since 2007
## Breeding programmes

<table>
<thead>
<tr>
<th>Animal</th>
<th>Total no. of breeding animals</th>
<th>Herd book animals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle</td>
<td>226,000</td>
<td>120,001</td>
</tr>
<tr>
<td>Pigs</td>
<td>138,000</td>
<td>21,964</td>
</tr>
<tr>
<td>Sheep</td>
<td>585,441</td>
<td>43,190</td>
</tr>
<tr>
<td>Goats</td>
<td>54,210</td>
<td>11,828</td>
</tr>
</tbody>
</table>
Performance recording

• Adoption of ICAR recommendations
• Increase of the number of animals under production recording
Cattle breed structure in performance recording

<table>
<thead>
<tr>
<th>Breeds</th>
<th>Farms</th>
<th>Cows</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simmental</td>
<td>9.122</td>
<td>120.001</td>
</tr>
<tr>
<td>Holstein</td>
<td></td>
<td>25.89</td>
</tr>
<tr>
<td>Brown</td>
<td>3.24</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>1.53</td>
</tr>
</tbody>
</table>

Simmental: 69.33%
Holstein: 25.89%
Brown: 3.24%
Other: 1.53%
The average herd size in milk recording

![Bar chart showing the average herd size for Brown, Simmental, and Holstein cows, with values 5.64, 6.54, and 17.21 respectively.]
Milk recording methods

- AT method: 88%
- BT method: 12%
Sheep and goats in milk recording

<table>
<thead>
<tr>
<th></th>
<th>No. of herds</th>
<th>No. of animals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sheep</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>94</td>
<td>4,894</td>
</tr>
<tr>
<td>2008</td>
<td>98</td>
<td>4,684</td>
</tr>
<tr>
<td>Goats</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>172</td>
<td>7,613</td>
</tr>
<tr>
<td>2008</td>
<td>172</td>
<td>8,134</td>
</tr>
</tbody>
</table>
Genetic evaluation

- BLUP
- Animal model
  - **Cattle** (Simmental and Holstein breeds)
  - **Pig** (Large white, Swedish Landrace, German Landrace, Pietren, Duroc, cross-breeds)
  - **Goats** (Saanen, Alpine)
Breeding value prediction
Evaluated traits

• Cattle
  – Milk (milk, fat and protein yield, fat and protein percentage)
  – Growth and carcass (net gain, conformation classes)
  – Conformation

• Goats
  – Milk (milk, fat and protein yield, fat and protein percentage, somatic cell count)
Breeding

- Coordination of breeding programs
  - Cooperation with breeders associations
    - Simmental:
      - Središnji savez hrvatskih uzgajivača Simentalskog goveda
        Central union of the Croatian Simmental breeders
    - Holstein:
      - Savez udruga hrvatskih uzgajivača Holstein goveda
        Union of the Croatian Holstein breeders
    - Sheep and goats:
      - Hrvatski savez uzgajivača ovaca i koza
        Croatian union of sheep and goat breeders
    - Pigs
      - SUS – Središnji savez udruga uzgajivača svinja
        Central union of the pig breeders associations
Milk

• The system of quality control of raw milk
• Approximately 22,500 farms sell milk per month
  – Milk samples from each farm are analyzed at least 3 times per month
  – Analytics of milk for individual animals (breeding)
  – Yearly 3,000,000 samples is analyzed
  – Laboratory collects data on milk quantities
Milk

• The system of quality control of raw milk
  – Established in 2002 year
  – ISO 17025 standard implemented
  – Laboratory performs:
    • chemical composition,
    • somatic cell count,
    • microorganisms and
    • residues
Milk producers
Milk production (deliveries)
Slaughter houses linked to the Animal registry

- The system of control and evaluation of carcasses at slaughter houses:
  - Evaluation of beef and pig carcasses in compliance with EU norms
    - Beef – since September 1\textsuperscript{st} 2004
    - Pigs – since January 1\textsuperscript{st} 2006
  - Implementation of system of traceability for cattle and pig meat
  - The use of data for breeding value estimation
Protection of autochthonous and endangered breeds of domestic animals

- National coordinating institution towards FAO
- Participation in research
- Proposals of protection measures and their implementation
Development and promotion of livestock production

• Design of development programs
• Education and information dissemination for livestock producers
• Organization of livestock fairs and exhibitions, as well as competitions in quality of domestic animals
• Organization of workshops and professional and specialist meetings
The data are used for

– Ministry of agriculture
– Farmers
– Dairy industry
– Slaughterhouses
– Veterinary offices
THANK YOU FOR YOUR ATTENTION!