CATTLE SECTOR DEVELOPMENT
IN TRANSITION COUNTRIES OF CEE

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Workshop jointly organized by:
EAAP Cattle Network Working Group
EAAP CEEC Contact Working Group
EAAP Cattle Commission
Cattle sector and dairy chain development in Ukraine

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8. Dairy policy and producers support in Ukraine
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1. CATTLE POPULATION, ITS SPATIAL DISTRIBUTION BY REGIONS

Figure 1. Cattle population in Ukraine by regions

Source: State Statistics Committee
1. CATTLE POPULATION, ITS SPATIAL DISTRIBUTION BY REGIONS

Figure 2. Spatial distribution of cattle number in Ukraine, heads per 100 ha of agricultural lands

Source: Data are based on agriculture enterprises and households.

Source: calculations of UCAB&vTi based on the data of the State Statistics Committee

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2. GENETIC DIVERSITY

Main breeds of dairy cattle
1. Ukrainian Red-Piebald
2. Ukrainian Black-Piebald
3. Red Steppe
4. Holstein
5. Ukrainian red dairy
6. Ukrainian brown dairy

Main breeds of dairy-beef cattle
1. Lebedinska
2. Sementalska
3. Brown Carpathian breed

Main breeds of beef cattle
1. Gray Ukrainian
2. Volynska
3. Ukrainian
4. Polisska
5. Aberdeen Angus
6. Hereford

Figure 3. The structure of breed livestock at the breeding companies of milk and combined breeds

Source: Ministry of Agrarian Policy

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3. STRUCTURAL CHANGES BY CATTLE NUMBER AND MILK PRODUCTION

Figure 4. Number of cattle in Ukraine

Source: State Statistics Committee

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### 4. MILK PRODUCTION BY AGRO-ENTERPRISES

Table 1. Structure of cow population across the farms, data as for 1 January each year.

<table>
<thead>
<tr>
<th>Number of agro-enterprises in the category</th>
<th>Change '08 to '06</th>
<th>Total number of cows by category, (Tsd. heads)</th>
<th>Change '08 to '06</th>
</tr>
</thead>
<tbody>
<tr>
<td>up to 10</td>
<td>1380</td>
<td>1295</td>
<td>1138</td>
</tr>
<tr>
<td>11-49</td>
<td>1668</td>
<td>1383</td>
<td>1013</td>
</tr>
<tr>
<td>50-99</td>
<td>1174</td>
<td>969</td>
<td>742</td>
</tr>
<tr>
<td>100-199</td>
<td>1291</td>
<td>1118</td>
<td>948</td>
</tr>
<tr>
<td>200-499</td>
<td>1202</td>
<td>1017</td>
<td>900</td>
</tr>
<tr>
<td>500-999</td>
<td>247</td>
<td>230</td>
<td>215</td>
</tr>
<tr>
<td>more than 1000</td>
<td>32</td>
<td>31</td>
<td>36</td>
</tr>
<tr>
<td>Total</td>
<td>6994</td>
<td>6043</td>
<td>4992</td>
</tr>
</tbody>
</table>

Source: own calculations based on the data of the State Statistics Committee

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Figure 5. Dairy cows' productivity and number of cows by agro-enterprises

Figure 6. Milk yields distribution by agro-enterprises, 2007

Source: State Committee for Statistics of Ukraine

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4. MILK PRODUCTION BY AGRO-ENTERPRISES

Table 2. Dairy cows' productivity distribution among the farms [1]

<table>
<thead>
<tr>
<th>Productivity, kg /cow</th>
<th>2006</th>
<th></th>
<th>2007</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Share in the total, %</td>
<td>Gross milk yield</td>
<td>Tsd. tones</td>
<td>Share in the total, %</td>
<td>Number</td>
<td>Share in the total, %</td>
<td>Tsd. tones</td>
</tr>
<tr>
<td>under 1000</td>
<td>1019</td>
<td>16,2</td>
<td>35,1</td>
<td>1,5</td>
<td>1008</td>
<td>18,7</td>
<td>34,9</td>
<td>1,7</td>
</tr>
<tr>
<td>1001–2000</td>
<td>1820</td>
<td>28,9</td>
<td>251,9</td>
<td>10,8</td>
<td>1470</td>
<td>27,3</td>
<td>218,8</td>
<td>10,5</td>
</tr>
<tr>
<td>2001–3000</td>
<td>1632</td>
<td>26,0</td>
<td>473,7</td>
<td>20,4</td>
<td>1323</td>
<td>24,6</td>
<td>388,3</td>
<td>18,7</td>
</tr>
<tr>
<td>3001–4000</td>
<td>934</td>
<td>14,8</td>
<td>546,9</td>
<td>23,5</td>
<td>759</td>
<td>14,1</td>
<td>430,0</td>
<td>20,7</td>
</tr>
<tr>
<td>4001–5000</td>
<td>480</td>
<td>7,6</td>
<td>459,7</td>
<td>19,8</td>
<td>428</td>
<td>8,0</td>
<td>438,7</td>
<td>21,2</td>
</tr>
<tr>
<td>5001–6000</td>
<td>229</td>
<td>3,6</td>
<td>298,1</td>
<td>12,8</td>
<td>200</td>
<td>3,7</td>
<td>292,2</td>
<td>14,1</td>
</tr>
<tr>
<td>more than 6000</td>
<td>181</td>
<td>2,9</td>
<td>257,9</td>
<td>11,2</td>
<td>195</td>
<td>3,6</td>
<td>271,2</td>
<td>13,1</td>
</tr>
<tr>
<td>Enterprises – total</td>
<td>6295</td>
<td>100,0</td>
<td>2323,3</td>
<td>100,0</td>
<td>5383</td>
<td>100,0</td>
<td>2074,1</td>
<td>100,0</td>
</tr>
</tbody>
</table>

[1] large and middle size enterprises (more than 100 ha lands in operation or more than 50 employees)
Source: State Committee for Statistics of Ukraine

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## 4. MILK PRODUCTION BY AGRO-ENTERPRISES

Table 3. Milk-producing enterprises specialization [1]

<table>
<thead>
<tr>
<th>Share of milk in the total revenue</th>
<th>2005</th>
<th>2007</th>
<th>Change ’05 to ’07</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of agro-enterprises in the category</td>
<td>Share in the total, %</td>
<td>Number of agro-enterprises in the category</td>
</tr>
<tr>
<td>1-10%</td>
<td>2166</td>
<td>46%</td>
<td>1339</td>
</tr>
<tr>
<td>11-20%</td>
<td>1327</td>
<td>28%</td>
<td>758</td>
</tr>
<tr>
<td>21-30%</td>
<td>792</td>
<td>17%</td>
<td>524</td>
</tr>
<tr>
<td>31-40%</td>
<td>424</td>
<td>9%</td>
<td>339</td>
</tr>
<tr>
<td>41-50%</td>
<td>162</td>
<td>3%</td>
<td>171</td>
</tr>
<tr>
<td>51-60%</td>
<td>75</td>
<td>2%</td>
<td>89</td>
</tr>
<tr>
<td>61-70%</td>
<td>23</td>
<td>0,5%</td>
<td>34</td>
</tr>
<tr>
<td>71-80%</td>
<td>6</td>
<td>0,1%</td>
<td>9</td>
</tr>
<tr>
<td>81-90%</td>
<td>2</td>
<td>0,0%</td>
<td>5</td>
</tr>
<tr>
<td>&gt;90%</td>
<td>0</td>
<td>0,0%</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>4677</td>
<td>100%</td>
<td>3271</td>
</tr>
</tbody>
</table>

[1] large and middle size enterprises (more than 100 ha lands in operation or more than 50 employees)

Source: own calculations based on the data of the State Statistics Committee
While slaughtering and price formation such categories of cattle are common used:

• young cattle;

• cattle of average fatness;

• cattle of high fatness:
  - bulls – over 400 kg,
  - cows – over 350 kg).

*Average live-weight before slaughtering of cows is about 170-180 kg depending on a season*

In Ukraine as usual there is no distinguish different breeds at the slaughter, what is a consequence of poor development of meat-productivity cattle breeding.
6. DAIRY SUPPLY CHAIN IN UKRAINE, ITS WEAKNESSES AND POSSIBILITIES

Figure 8. Dairy sector map of Ukraine

Milk producing farms and dairy plants are mostly concentrated in the North-Central-West part of Ukraine.

**Dairy plants**
- about 600
  (most of them are private)

**Milk producing agricultural enterprises**
- about 3700

Source: Oleg Nivievskyi, Inna Ilienko and Maria Ryzhkova (2007)
6. DAIRY SUPPLY CHAIN IN UKRAINE, ITS WEAKNESSES AND POSSIBILITIES

Efficiency of ago-enterprises

Used: Data Envelopment Analysis (DEA) and making calculations with a program DEAP 2.1 (created by Tim Coelli)

Were selected: 870 enterprises the share of milk in the total revenue of which was more than 30%.
431 enterprises the share of beef in the total revenue of which was more than 35%.
(large and middle size enterprises: >100 ha lands in operation or >50 employees)

Results:
The average technical efficiency of milk production - 36,6%
The average efficiency of cattle breeding - 28,0%
generally takes place on a very extensive basis increasing the feed costs

forages complete about 50-75% in the structure of expenses in livestock raising

the areas under the forage cultures drought down

most of the fodder is produced by dairy farms themselves. Feed additives are mostly imported

Ukraine imports the protein forages of industrial producing (meat and meat-bone, fish meal, soybean meal)

producing of mixed fodder for cattle, as for other kinds of domestic animals, is rising, but the part of it in the whole volume is decreasing

But Ukraine has a great potential, as for the forage reserve development:
- on export goes feed grain, sunflower meal, siftings
- prices for this production in comparison with the world prices are low
6. DAIRY SUPPLY CHAIN IN UKRAINE, ITS WEAKNESSES AND POSSIBILITIES

Extension service and access to market information

- there exist only a few centers of extension services in Ukraine
- private extension has been developing in Ukraine
- public extension has been showed very poor results, despite of state financing of such activities
- on the national level there is no official statistical data on supply and demand available
- Ukrainian extension services often provide and make consulting only in general issues mostly in social and private small business initiatives.
Pedigree cattle the domestic selection industry is far to meet the current demand from dairy farming.

Problems by import from abroad:
  a) import procedures;
  b) there should be a big consignment, which is accessible only for big farms;
  c) farmers will not receive maximum yields because of poor practices and lack of knowledge on a farm.

Productivity of cows from domestic breeding organizations is comparatively low.

Inseminate domestic cows with imported semen from pedigree bulls:
  a) productivity of a cow would be lower compared to imported one (say, 9 vs. 12t/year);
  b) the price would also be lower.
Logistic and infrastructure is underdeveloped and rather expensive

- Milk collection in most cases is provided by dairy processors.

- Sometimes local authority or cooperatives might be responsible for the delivery of raw milk to the plant.

- Usually dairies use old trucks, that’s why it is difficult to ensure the quality of milk.

- Milk collection system in Ukraine is rather heterogeneous, since a major share of the raw milk is bought from households.
### Table 4. Raw milk quality standards for food production in Ukraine and EU

<table>
<thead>
<tr>
<th></th>
<th>EU</th>
<th>Ukraine</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Extra grade</td>
<td>Higher grade</td>
</tr>
<tr>
<td>Plate count 30 °C ('000 per ml)</td>
<td>≤100</td>
<td>≤100</td>
</tr>
<tr>
<td>Somatic cell count ('000 per ml)</td>
<td>≤400</td>
<td>≤400</td>
</tr>
</tbody>
</table>


### Table 5. Quality of milk, sold by agro-enterprises to processors according to DSTU 3662-97 (1st half of 2008)

<table>
<thead>
<tr>
<th>Extra grade</th>
<th>Higher grade</th>
<th>1st grade</th>
<th>2nd grade</th>
<th>Offal (non varietals)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tsd. t</td>
<td>Share in the total, %</td>
<td>Tsd. t</td>
<td>Share in the total, %</td>
<td>Tsd. t</td>
</tr>
<tr>
<td>0,54</td>
<td>0,1</td>
<td>236,9</td>
<td>27,3</td>
<td>554,1</td>
</tr>
</tbody>
</table>

Source: State Committee for Statistics of Ukraine
7. PRODUCTION AND CONSUMPTION OF DAIRY PRODUCTS AND BEEF IN UKRAINE

<table>
<thead>
<tr>
<th>Year</th>
<th>Production of milk and dairy products, Mln. t</th>
<th>Consumption of milk and dairy products, kg/year</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>12.7</td>
<td>199</td>
</tr>
<tr>
<td>2001</td>
<td>13.4</td>
<td>205</td>
</tr>
<tr>
<td>2002</td>
<td>14.1</td>
<td>225</td>
</tr>
<tr>
<td>2003</td>
<td>13.7</td>
<td>226</td>
</tr>
<tr>
<td>2004</td>
<td>13.7</td>
<td>226</td>
</tr>
<tr>
<td>2005</td>
<td>13.7</td>
<td>225</td>
</tr>
<tr>
<td>2006</td>
<td>13.3</td>
<td>235</td>
</tr>
<tr>
<td>2007</td>
<td>12.3</td>
<td>220</td>
</tr>
</tbody>
</table>

Source: State Committee for Statistics of Ukraine

Figure 9. Production of dairy products (Tsd. tons)

Figure 10. Consumption of dairy products (Tsd. tons)
Fixed Agricultural Tax:
• replaces profit tax, land tax and some others;
• the base of the FAT is the normative value of a farm’s agricultural land.

Special regime with value added tax:
• VAT equals zero for producers of meat (in live weight) and milk selling their products directly to processing enterprises;
• VAT amounts to be paid by meat and milk processors to the state budget are redirected to meat and milk producers as a subsidy proportional to the delivered raw materials;
• VAT amounts from selling agricultural products (except meat in live weight, and milk) remain on the accounts of agro-producers and may be used for operational needs.

Special regime with value added tax do not comply with WTO requirements

Subsidy for cattle grown and sold: minimum LW of one animal – 390 kg (agro-enterprises) and 330 kg (households) - 1,9 UAH per 1 kg.

Special subsidy for heifer livestock

Special subsidy for livestock of meat-productivity cattle

Subsidies for ecologically tested milk

Partial interest rate compensation

Partial compensation of agricultural machinery costs and insurance payments
SUMMARY
For stabilization of situation in cattle sector development in Ukraine are needed:

- Relatively short payback period of investment in milk and beef production needs improvement of state programs of industry support:
  - stability of priorities of financing;
  - long term programs of funds distribution;
  - better informing and consulting of agricultural producers.

- Improvement in production at agricultural enterprises:
  - optimization of available resources usage,
  - increase of efficiency by introduction of new technologies,
  - increase of qualification of the employees of the farms,
  - improvements in management

- Increase in foreign market shares by national dairy producers:
  - further harmonization of domestic quality standards with European ones;
  - more distinct boundary setting on the legislative level of the authorities of the central quality controlling bodies;
  - quality increase of dairy products;
  - improvement of storage and transportation systems for all stages of production.
Thank you for your attention!

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