



# International workshop

## **CATTLE SECTOR DEVELOPMENT IN TRANSITION COUNTRIES OF CEE**

**22 August 2008, Vilnius - Le Meridien Villon Convention Centre**

in the context of the 59<sup>th</sup> EAAP Annual Meeting

**Workshop jointly organized by:  
EAAP Cattle Network Working Group  
EAAP CEEC Contact Working Group  
EAAP Cattle Commission**

**CATTLE SECTOR DEVELOPMENT  
IN TRANSITION COUNTRIES OF CEE**

22 August 2008, Vilnius

**Cattle sector and dairy chain  
development in Ukraine**

***Inna Ilienکو***  
***Association «Ukrainian Agribusiness Club»***  
***Kiev, Ukraine***



**Association «Ukrainian Agribusiness Club»**  
[www.agribusiness.kiev.ua](http://www.agribusiness.kiev.ua)



# CATTLE SECTOR DEVELOPMENT IN TRANSITION COUNTRIES OF CEE

22 August 2008, Vilnius

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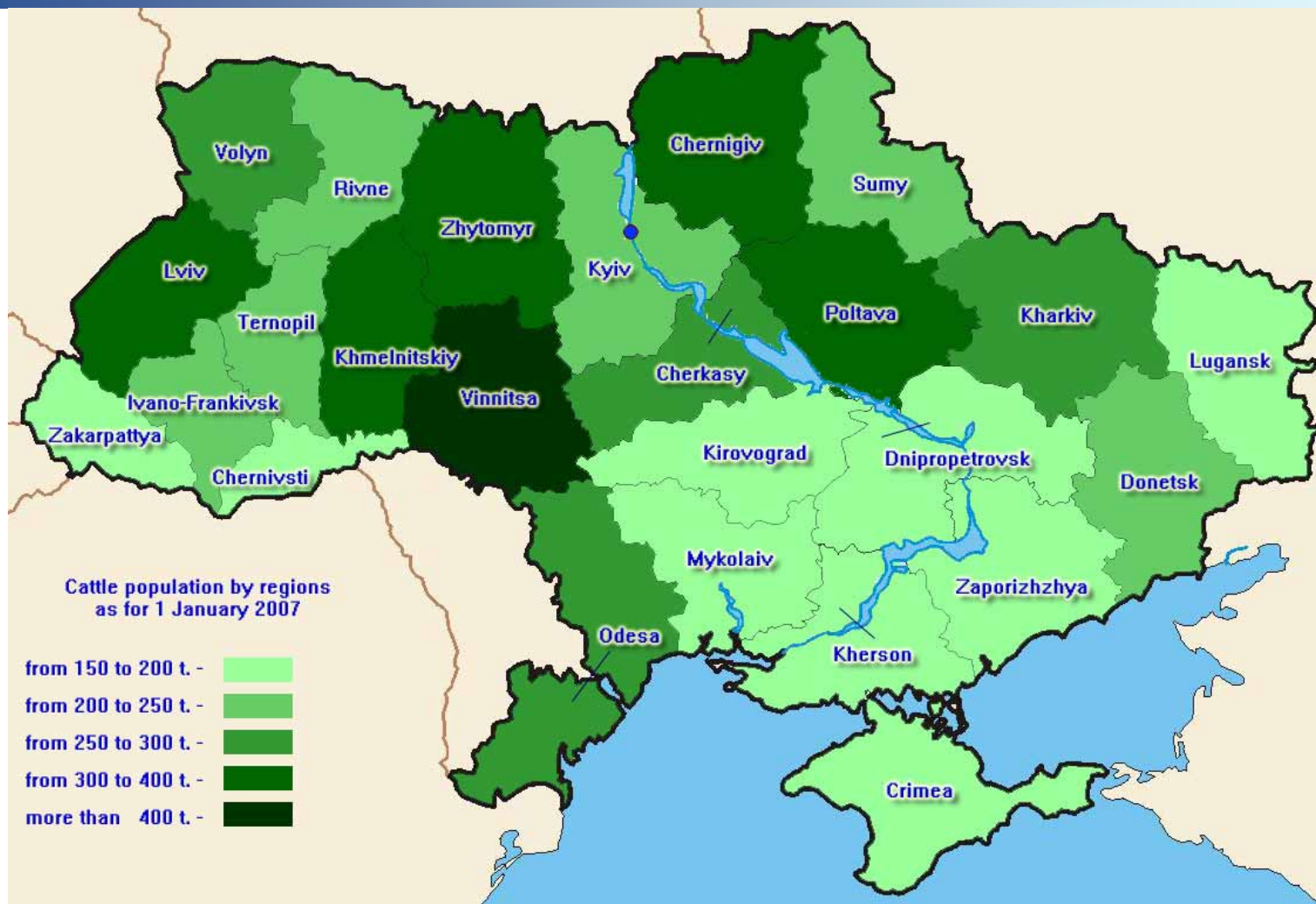


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# 1. CATTLE POPULATION, ITS SPATIAL DISTRIBUTION BY REGIONS

Figure 1. Cattle population in Ukraine by regions



Source: State Statistics Committee

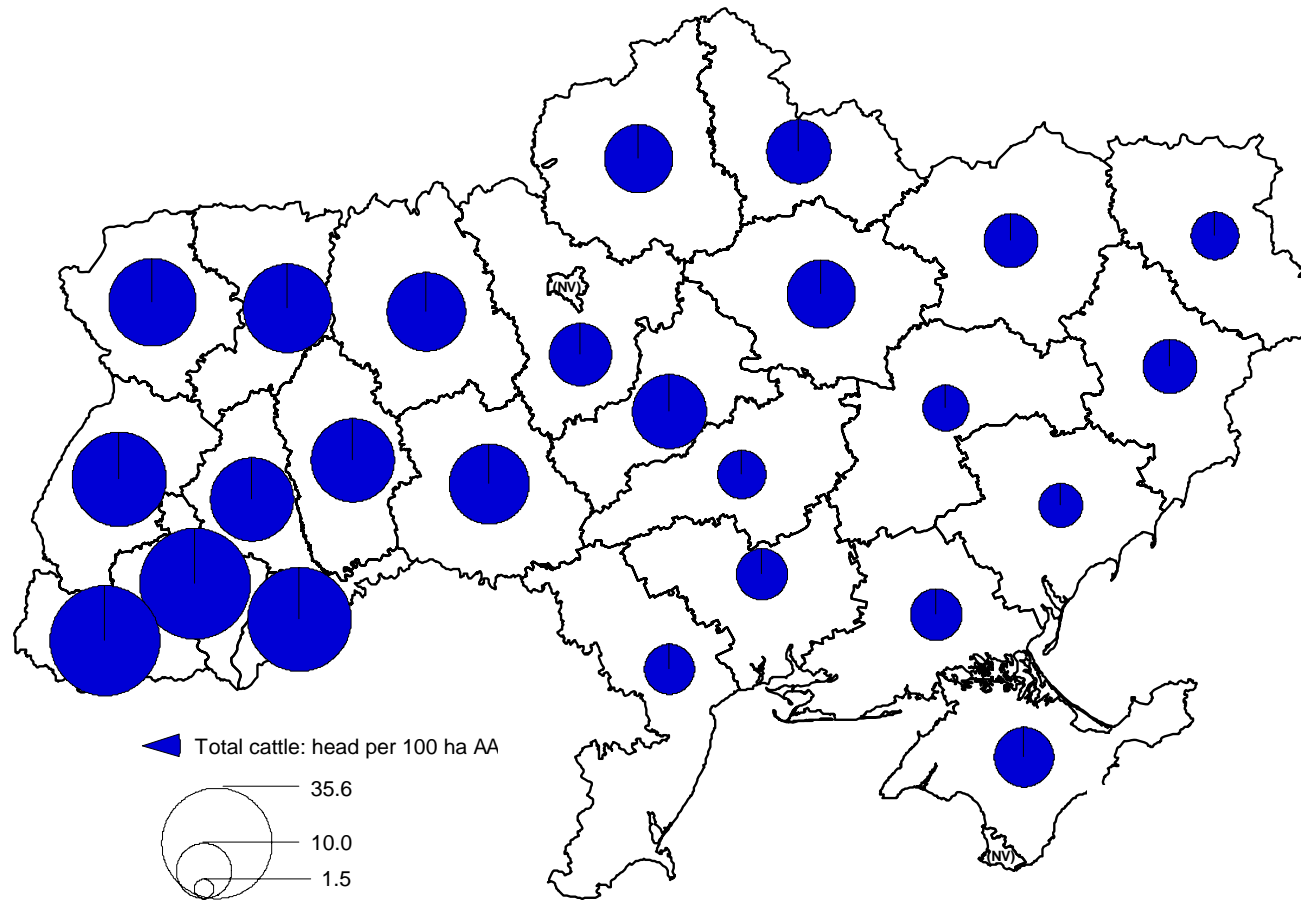


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# 1. CATTLE POPULATION, ITS SPATIAL DISTRIBUTION BY REGIONS

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

## 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

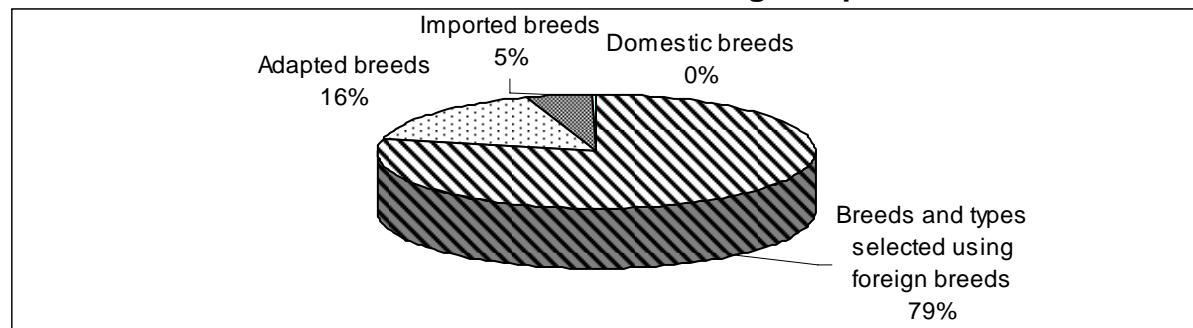
### Main breeds of dairy-beef cattle

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

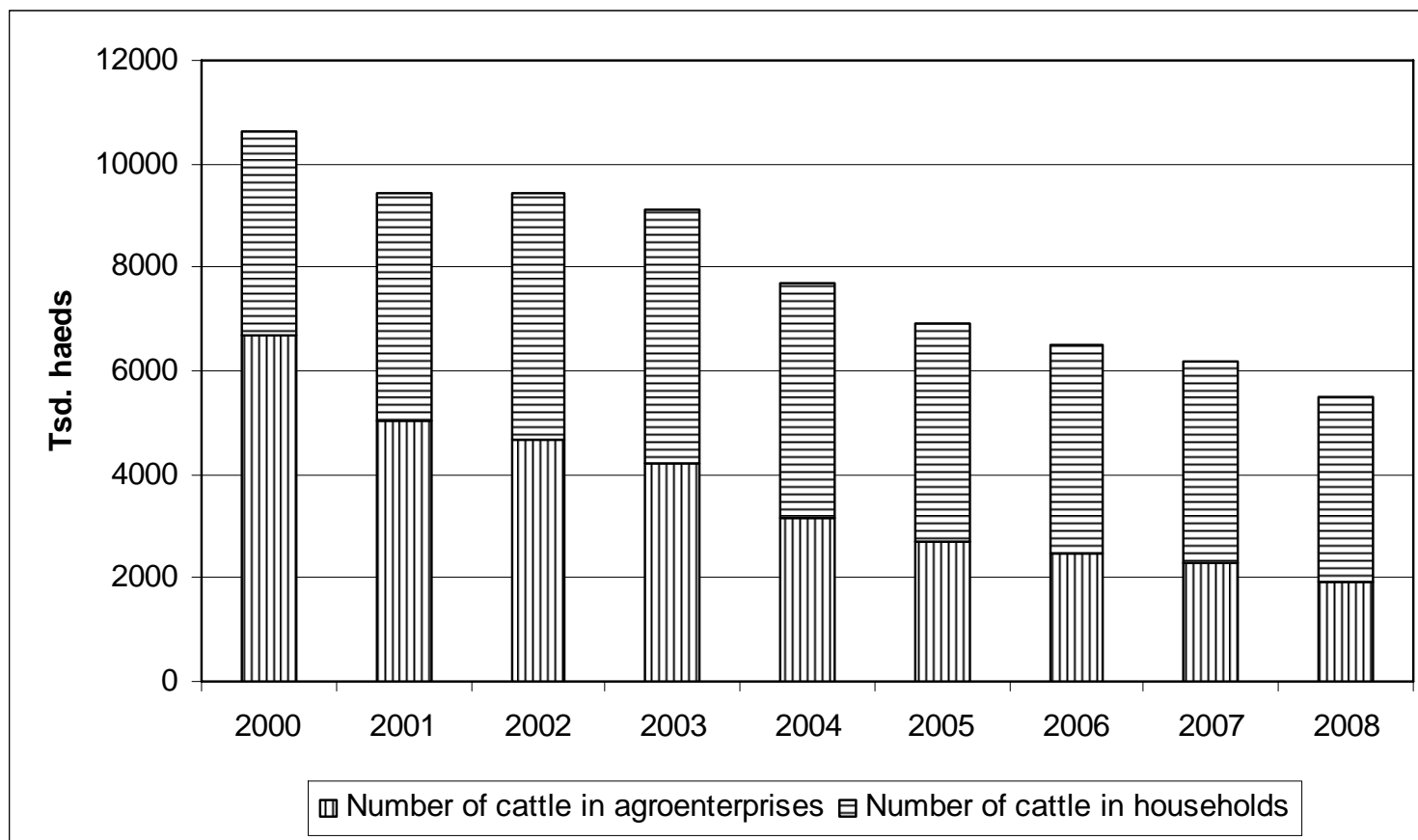
Figure 3. The structure of breed livestock at the breeding companies of milk and combined breeds



Source: Ministry of Agrarian Policy

### 3. STRUCTURAL CHANGES BY CATTLE NUMBER AND MILK PRODUCTION

Figure 4. Number of cattle in Ukraine



Source: State Statistics Committee

## 4. MILK PRODUCTION BY AGRO-ENTERPRISES

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

	Number of agro-enterprises in the category			Change '08 to '06	Total number of cows by category, (Tsd. heads)			Change '08 to '06
	2006	2007	2008		2006	2007	2008	
up to 10	1380	1295	1138	<b>82%</b>	6,3	5,7	5	<b>79%</b>
11-49	1668	1383	1013	<b>61%</b>	45,2	36,8	26,8	<b>59%</b>
50-99	1174	969	742	<b>63%</b>	82,7	68,7	51,9	<b>63%</b>
100-199	1291	1118	948	<b>73%</b>	180	155,6	131	<b>73%</b>
200-499	1202	1017	900	<b>75%</b>	355,4	305,4	274,3	<b>77%</b>
500-999	247	230	215	<b>87%</b>	155,5	148,1	139,3	<b>90%</b>
<b>more than 1000</b>	<b>32</b>	<b>31</b>	<b>36</b>	<b>113%</b>	<b>41,1</b>	<b>43,7</b>	<b>50,2</b>	<b>122%</b>
<b>Total</b>	<b>6994</b>	<b>6043</b>	<b>4992</b>	<b>-</b>	<b>866,2</b>	<b>764</b>	<b>678,603</b>	<b>-</b>

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



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## 4. MILK PRODUCTION BY AGRO-ENTERPRISES

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

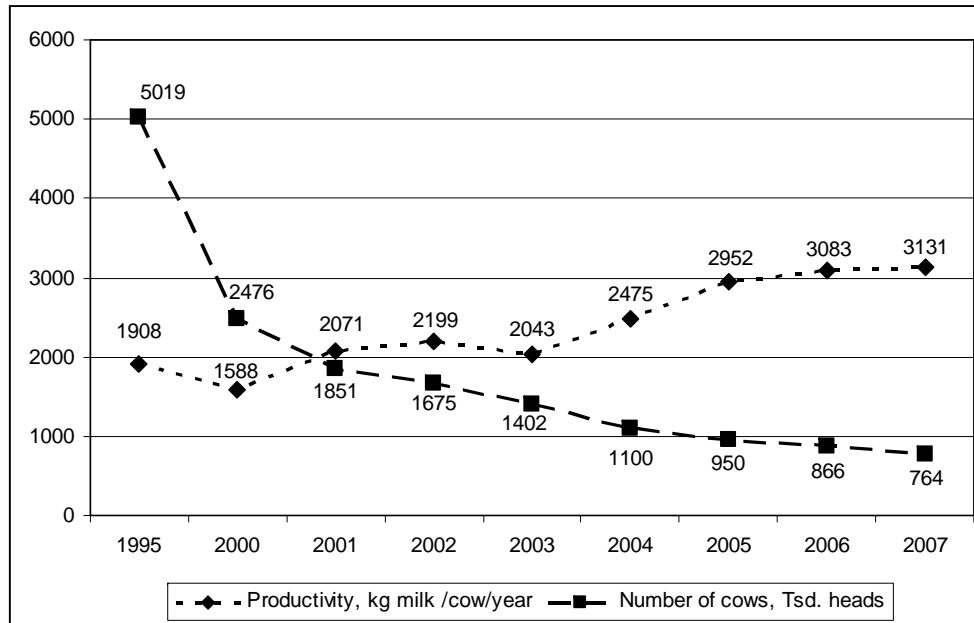
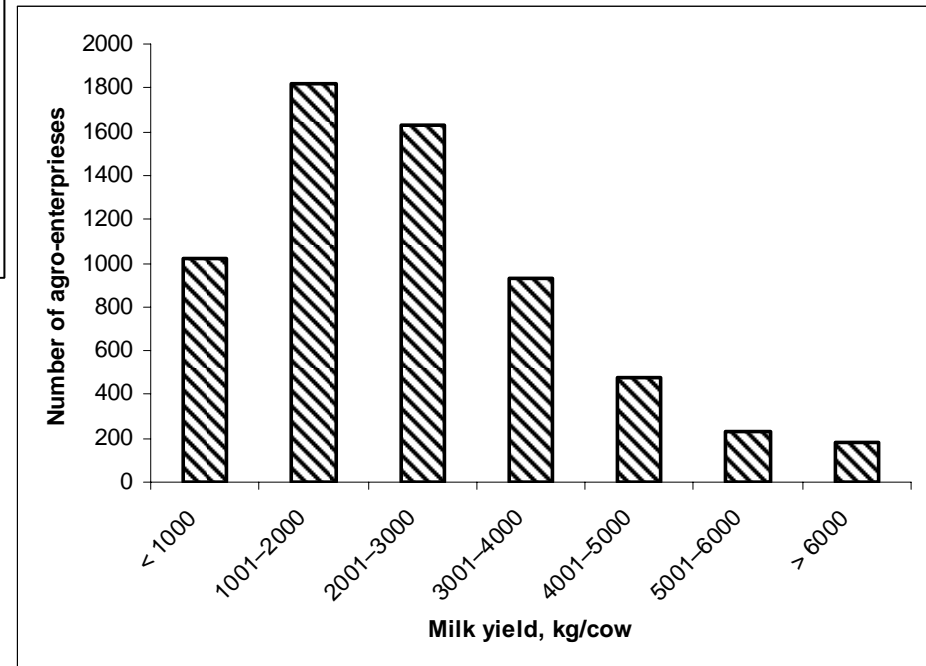


Figure 6. Milk yields distribution by agro-enterprises, 2007



Source: State Committee for Statistics of Ukraine

## 4. MILK PRODUCTION BY AGRO-ENTERPRISES

Table 2. Dairy cows' productivity distribution among the farms <sup>[1]</sup>

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

[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<sup>[1]</sup>

Share of milk in the total revenue	2005		2007		Change '05 to '07
	Number of agro-enterprises in the category	Share in the total, %	Number of agro-enterprises in the category	Share in the total, %	
1-10%	2166	46%	1339	41%	62%
11-20%	1327	28%	758	23%	57%
21-30%	792	17%	524	16%	66%
31-40%	424	9%	339	10%	80%
41-50%	162	3%	171	5%	106%
51-60%	75	2%	89	3%	119%
61-70%	23	0,5%	34	1%	148%
71-80%	6	0,1%	9	0,3%	150%
81-90%	2	0,0%	5	0,2%	250%
>90%	0	0,0%	3	0,1%	-
<b>Total</b>	<b>4677</b>	<b>100%</b>	<b>3271</b>	<b>100%</b>	<b>70%</b>

[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

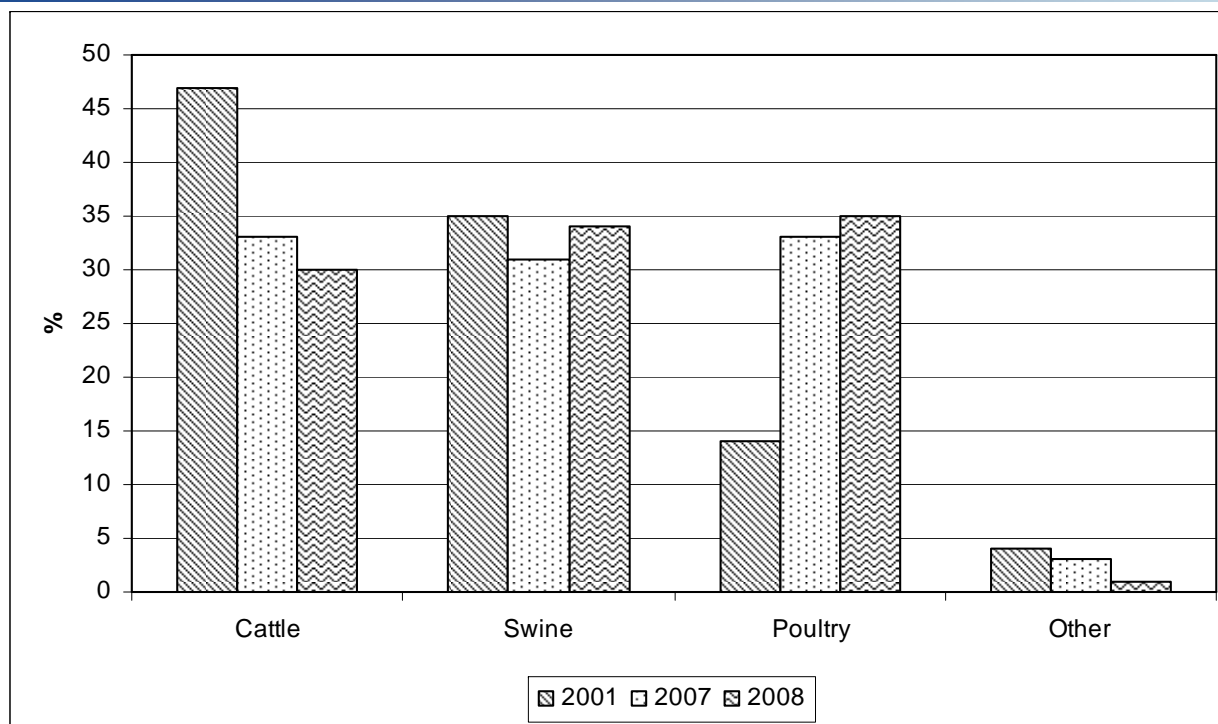


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## 5. SLAUGHTERING OF CATTLE

Figure 7. Share of cattle, swine and poultry in the total stock sold for slaughter



Source: State Committee for Statistics of Ukraine, 2008 – UCAB's estimation

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



Dairy plants

Dairy farms

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 Nivievskiy, Inna Iliencko 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%**



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## 6. DAIRY SUPPLY CHAIN IN UKRAINE, ITS WEAKNESSES AND POSSIBILITIES

### Feed production for dairy sector

- 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



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## 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.



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## 6. DAIRY SUPPLY CHAIN IN UKRAINE, ITS WEAKNESSES AND POSSIBILITIES

### Pedigree cattle

**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.



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## 6. DAIRY SUPPLY CHAIN IN UKRAINE, ITS WEAKNESSES AND POSSIBILITIES

### Logistic and infrastructure

#### **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 row 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.



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## 6. DAIRY SUPPLY CHAIN IN UKRAINE, ITS WEAKNESSES AND POSSIBILITIES

### Raw milk quality

Table 4. Raw milk quality standards for food production in Ukraine and EU

	EU	Ukraine			
		Extra grade	Higher grade	1 <sup>st</sup> grade	2 <sup>d</sup> grade
Plate count 30 °C ('000 per ml)	≤100	≤100	≤300	≤500	≤3000
Somatic cell count ('000 per ml)	≤400	≤400	≤400	≤600	≤800

Source: (EU Council Directive 92/46/EEC, Chapter IV, A); (Grade "A" Pasteurized Milk Ordinance revised 2003), Press releases; DSTU 3662-97.

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

Extra grade		Higher grade		1 <sup>st</sup> grade		2 <sup>d</sup> grade		Offal (non varietals)	
Tsd. t	Share in the total, %	Tsd. t	Share in the total, %	Tsd. t	Share in the total, %	Tsd. t	Share in the total, %	Tsd. t	Share in the total, %
0,54	0,1	236,9	<b>27,3</b>	554,1	<b>63,8</b>	63,4	7,3	13,3	1,5

Source: State Committee for Statistics of Ukraine



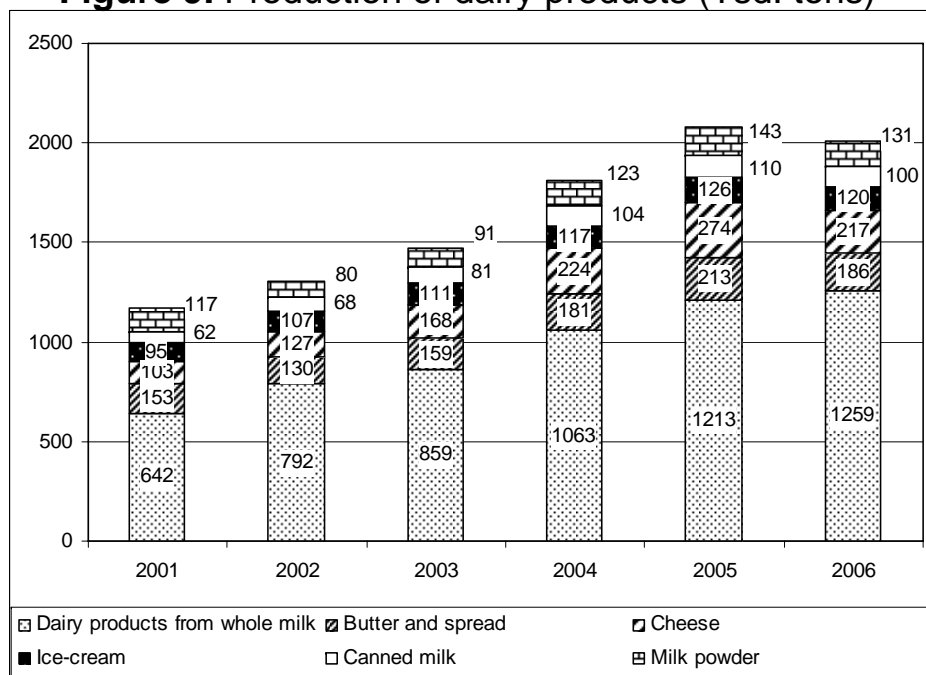
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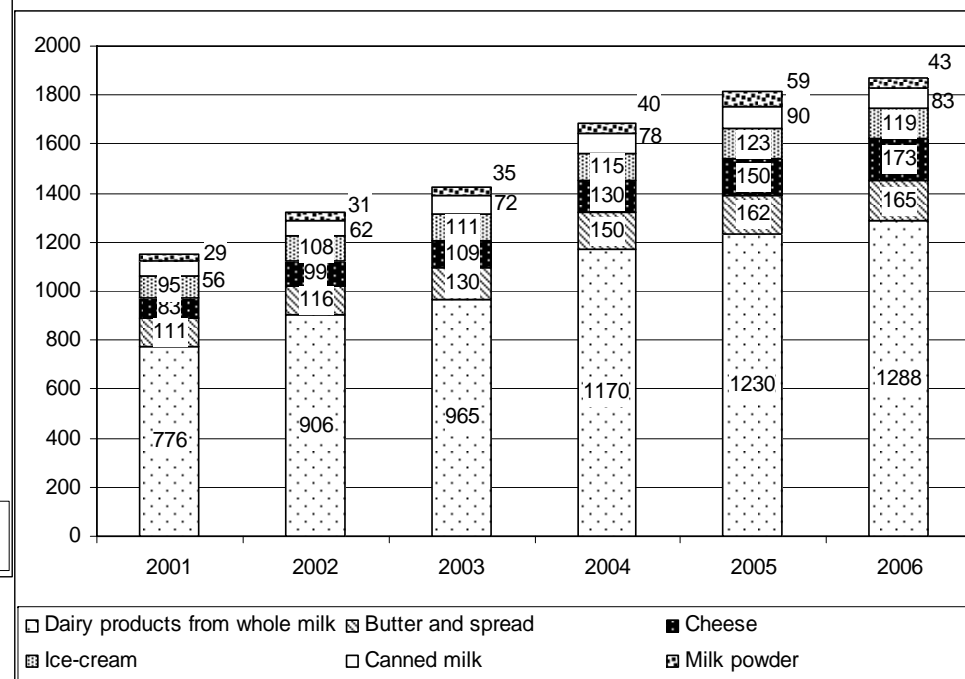
## 7. PRODUCTION AND CONSUMPTION OF DAIRY PRODUCTS AND BEEF IN UKRAINE

	2000	2001	2002	2003	2004	2005	2006	2007	2006 to 2000,%
Production of milk and dairy products, Mln. t	12.7	13.4	14.1	13.7	13.7	13.7	13.3	12.3	97
Consumption of milk and dairy products, kg/year	199	205	225	226	226	225	235	220	111

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



**Figure 10.** Consumption of dairy products (Tsd. tons)



Source: State Committee for Statistics of Ukraine



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## 6. DAIRY POLICY AND PRODUCER SUPPORT IN UKRAINE

### **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**



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## 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.



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**Thank you for your attention!**

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+ 380 44 238 05 40

[ilienko@agribusiness.kiev.ua](mailto:ilienko@agribusiness.kiev.ua)

[www.agribusiness.kiev.ua](http://www.agribusiness.kiev.ua)

