

ANALYSIS OF THE AGRICULTURAL BRANCHES, CROP AND ANIMAL PRODUCTION IN VRANCEA COUNTY

ANALIZA RAMURILOR AGRICULTURII, VEGETALĂ ȘI ZOOTEHNICĂ, DIN JUDEȚUL VRANCEA

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Abstract: *The research performed focuses on the analysis of agriculture branches, crop and animal production in Vrancea county on the basis of some specific statistical indicators. Vrancea county comprises 5 towns of which : 2 municipalities, 68 communes and 331 villages according to the data from the Statistical Yearbook of Vrancea county. The analysis of the scientific experiment covers a period of 12 years (1995-2006) and is based on a series of specific characterizing indicators: the number and structure of main crops and livestock. In 2006 the total area of Vrancea county was of 485.703 ha, out of which 255.666 ha (52,63%) represents the agricultural area. This one has the following structure: 148.084 ha arable land (58%), 27.209 ha vineyards (11%), 3.836 ha orchards (1%), 27.209 ha hayfields (13%) and 32.777 ha pasture (17%). From the point of view of property, the agricultural area had the following structure on 31.12.2005: 97,66% private property and 2,34 % state property. The agricultural-economic context of Vrancea county favors crop cultivation and livestock breeding. During the studied period for these fields of activities an increasing trend was observed. The present project presents the of activity with livestock and crop yield decrease.*

Rezumat. *Cercetarea întreprinsă își propune analiza ramurilor agriculturii, vegetală și zootehnică, din județul Vrancea pe baza unor indicatori statistici specifici. Județul Vrancea are în componență 5 orașe, din care: 2 municipii, 68 de comune și 331 de sate conform datelor existente în Anuarul Statistic al Județului Vrancea. Analiza demersului științific acoperă o perioadă 12 ani (1995-2006) și este bazată pe o serie de indicatori specifici de caracterizare: numărul și structura principalelor culturi și a efectivelor de animale, producția agricolă animală și vegetală. Suprafața totală a județului Vrancea era în anul 2006 de 485.703 ha, din care 255.666 ha (52,63%) reprezintă suprafața agricolă..*

Aceasta se structurează astfel: 148.084 ha teren arabil (58%), 27.209 ha vie (11%), 3.836 ha livadă (1%), 27.209 ha fânețe (13%) și 32.777 ha pășuni (17%). Suprafața agricolă, din punct de vedere al proprietății, la 31.12.2005, a fost structurată astfel: 97,66 % domeniul privat și 2,34 % proprietatea statului. Arealul agro-economic al județului Vrancea prezintă condiții favorabile pentru cultivarea plantelor și creșterea animalelor. În perioada analizată s-a constatat o tendință de creștere a producțiilor acestor ramuri. Lucrarea prezintă cauzele care au manifestat tendința de descreștere a producției vegetale sau animale.

MATERIAL AND METHODS

Statistical specific indicators for Vrancea county were used. As sources of information we resorted to the Statistical Yearbook of Vrancea County for 2006, the Statistical Vrancea County Department, and other direct studies performed. The comparison and statistical data analysis methods were used for this scientific project.

RESULTS AND DISCUSSIONS

Table 1

The evolution of total land fund according to size and structure (hectares)

Year	Total land	Agricultural land		From which:				
		ha	%	Arable land %	Pastures %	Hayfields %	Vineyards %	orchards %
1995	485703	255284	100	57,50	16,69	12,74	11,25	1,82
2000	485703	255454	100	57,76	16,82	12,94	10,90	1,58
2002	485703	255601	100	57,90	16,87	12,91	10,79	1,53
2004	485703	255658	100	57,92	17,00	12,90	10,68	1,50
2006	485703	255666	100	57,93	17,10	12,82	10,65	1,50

[Source: <http://www.vrancea.insse.ro/>] - processing dates

Analyzing the data about the evolution of total land fund according to size and structure, a slight tendency towards increase was noticed during 1995-2006. During this period the agricultural area grew with 382 ha. Some increases were also registered at the level of arable use (with 0,43%), pastures (with 0,41 %), and hayfields (with 0,08 %) disadvantaging vineyards and orchards.

In 2006, the agricultural area of Vrancea county was of 255.666 ha : arable land – 148.111 ha (57,93%), pastures – 43.719 ha (17,10 %), hayfields – 32.777 ha (12,82 %), vineyards – 27.236 ha (10,65 %) and orchards – 3.823 ha (1,50%) (Fig.1).

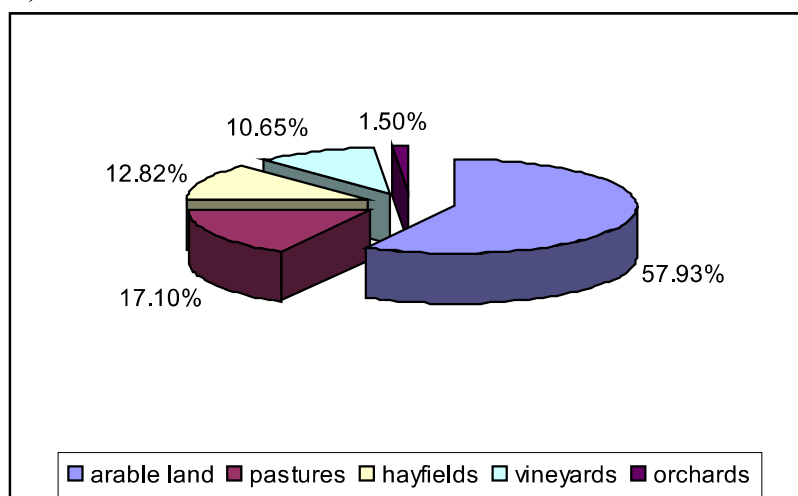


Fig. 1 – The structure of total land fund by use in 2006

Table 2 shows the cultivated area with the main crops for Vrancea county, during the period 1995-2006. For most of crops the cultivated land diminished in 2006 in comparison with 1995, except for oilseed plants which increased with + 38,43 percent .

Table 2

Cultivated area by main crops (hectares)

Year	1995	2000	2002	2004	2006	2006/1995 %
Cereals for grains	114535	107555	112603	114176	91961	80,29
- Wheat and rye	31676	26148	39017	29748	20156	63,63
- Barley and two-row barley	3194	4292	4455	3108	3320	103,94
- Maize grains	78569	75890	67764	79628	66820	85,05
Potatoes	1859	2048	2106	2024	1847	99,35
Sugar beet	1395	836	392	18	40	2,87
Oilseed plants	9262	11100	10577	11633	12821	138,43
Vegetables	4796	6038	5934	5797	539	11,24

[Source: <http://www.vrancea.insse.ro/>] - processing dates

Arable land is part of the higher category and represents the majority of agricultural land area, namely 57,93%. Table 3 shows the structure of cultivated areas by main crops.

Table 3

Cultivated area by main crops (hectares) - % from arable land

Specificare	1995	2000	2002	2004	2006
Cereals for grains	78,03	72,89	76,08	77,11	62,09
- Wheat and rye	21,58	17,72	26,36	20,09	13,61
- Barley and two- row barley	2,18	2,91	3,01	2,10	2,24
- Maize grains	53,53	51,43	45,78	53,78	45,12
Potatoes	1,27	1,39	3,12	1,36	1,25
Sugar beet	0,95	0,57	0,26	0,01	0,03
Oilseed plants	6,31	7,52	7,15	7,85	8,66
Vegetables	3,27	4,09	3,76	3,55	3,64

[Source: *Anuarul Statistic al Județului Vrancea 2006*] – processing dates

According to the data analyzed, during the period 1995-2006, the majority is represented by cereals for grains with 78,03% in 1995 and 62,09 % in 2006. A clear decrease of 15,94 % can be observed, which has a positive side, taking into account the unbalanced structure of crops. This fact influences economic outcomes and gives the possibility of performing a balanced rotation of crops in order to comply with agro-technical requirements.

Three categories of factors are involved in agricultural yield: natural, economic and social ones and the results obtained – from the point of view of quantity, quality and economic efficiency – are directly proportional with the manner in which these three factors are harmoniously combined.(1, 1998)

Crop yield situation of Vrancea county is illustrated in Table 4.

Table 4

Crop yield by main crops (tons)

Year	1995	2000	2002	2004	2006	2006/1995 %
Cereals for grains	284990	182617	240621	419478	277985	97,54
- Wheat and rye	89280	60010	53142	87833	50998	57,12
- Barley and two- row barley	14181	10923	6303	7445	5546	39,11
- Maize grains	179584	110712	180036	320689	218890	121,89
Potatoes	20134	16122	23317	27936	44111	219,09
Sugar beet	27837	7401	5630	419	1200	4,31
Sunflower	12096	11013	8830	20573	18517	153,08
Grapes	272422	243189	231085	317658	166238	61,02
Fruits	27411	33485	30962	46970	67323	245,61

[Source: *Anuarul Statistic al Județului Vrancea 2006*]

Comparing 2006 with 1995 an increase tendency is observed for the following crops: maize grains (with +21,89 percent), potatoes (with -119,09 percent), sunflower (with +53,08 percent) and fruits (with +145,61 percent). For the other crops (cereals for grains – wheat and rye, barley and two row barley, sugar beet and grapes) in 2006 compared with 1995 a decrease tendency was registered.

Table 5

Livestock (heads)

Year	1995	2000	2002	2004	2006	2000/1995 %	2006/2000 %
Cattle	65474	56736	57087	57790	62448	86,65	110,06
Swine	104337	48371	50331	87448	81130	46,36	167,72
Sheep	208772	155263	148682	138604	160869	74,37	103,61
Goats	22865	13843	16070	13921	21204	60,54	153,17

[Source: *Anuarul Statistic al Județului Vrancea 2006*] – processing dates

During the period 1995-2000 a decrease trend was demonstrated: for cattle with -13,35 percent, swine with -53,64 percent, sheep with – 25,63 percent and goats with – 39, 46 percent.(Fig. 2).

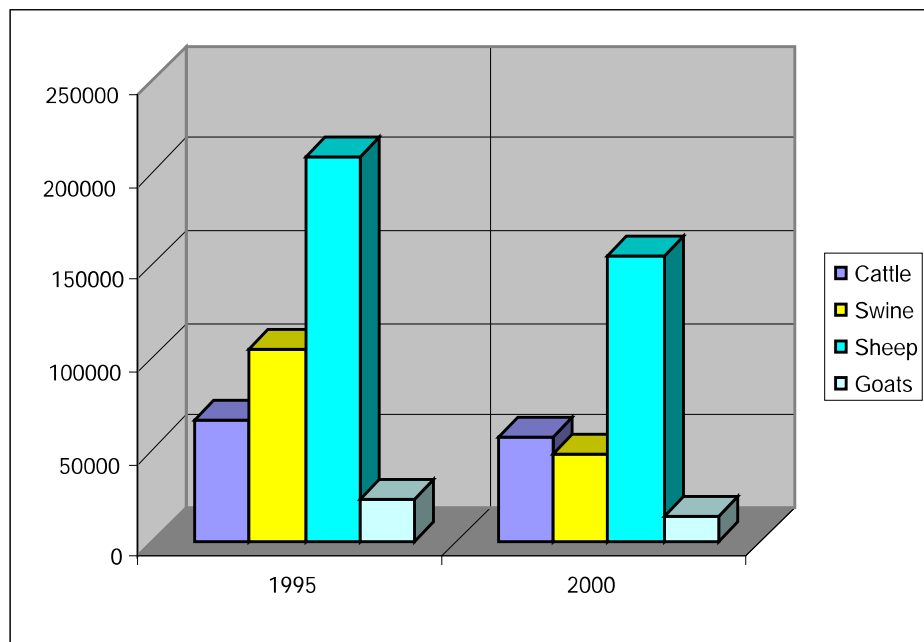


Fig. 2 – Livestock for Vrancea county during the period 1995 -2000

During the period 200-2006 an increase in livestock number was recorded: for cattle with + 10,06 percent, swine with +67,72 percent, sheep with +3,61 percent and goats with +53,17 percent.(Fig. 2)

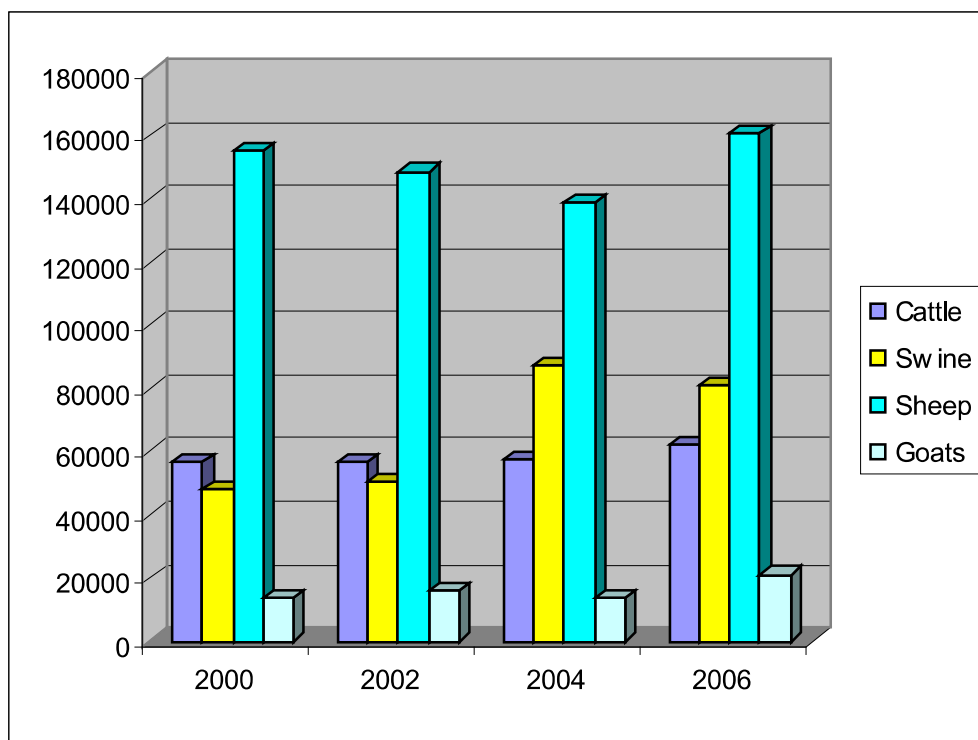


Fig. 2 – Livestock for Vrancea county during the period 2000 -2006

Table 5 shows the evolution of livestock production during 2001-2006 and the increase or decrease tendency of livestock yield for 2006 in comparison with 2001.

Table 5

Livestock yield					
Year	2001	2002	2004	2006	2006/ 2000 %
Meat – total of which (tons):	31500	25500	28433	23378	74,22
Beef (tons)	7249	5334	6701	4752	65,55
Pork (tons)	6300	6800	7744	6250	99,21
Mutton and Goat meat (tons)	1812	2082	3551	1815	100,17
Poultry meat (tons)	16138	11233	10425	10558	65,42
Milk (hl)	1061,7	1065,7	1173,7	1329	125,18
Sheep and Goat milk (hl)	992,8	996,8	1082,0	1180	118,86
Chicken eggs (thousand pieces)	142,7	142,7	170,4	172	120,53
Extracted honey (tons)	240,6	297,1	330,2	181	75,23

[Source : *Anuarul Statistic al Județului Vrancea 2006*]

CONCLUSIONS

According to the data analyzed, during the period 1995-2006, the cultivated area with main crops was dominated by cereals for grains in a percentage of 78,03% in 1995 and 62,09 % in 2006. A clear decrease of 15,94 % can be observed, which has a positive side, taking into account the unbalanced structure of crops. This fact influences economic outcomes and gives the possibility of performing a balanced rotation of crops in order to comply with agro-technical requirements. It should be emphasized the fact that the number of livestock for the period 1995-2000 decreased but during 2000—2006 the tendency was of increase.

In comparison with 1995, in 2006 there was a growth of maize for grain, potatoes, sunflower and fruit yield but for wheat, barley and two row barley, sugar beet and grapes yield clearly diminished. By comparing the situation of livestock yield in Vrancea county in 2006 with the one in 2001 it can be observed an increase of mutton and goat meat yield also of milk, wool and eggs but also a decrease of pork, beef, chicken meat and honey production.

The agricultural-economic context of Vrancea county favors crop cultivation and livestock breeding. During the studied period for these fields of activities an increasing trend was observed.

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