

Ivascu, Teodora

Conference Paper

Dynamics of agricultural land, the park of tractors and agricultural machinery and the total production obtained South of Romania during 2005 - 2010

Provided in Cooperation with:

The Research Institute for Agriculture Economy and Rural Development (ICEADR), Bucharest

Suggested Citation: Ivascu, Teodora (2012) : Dynamics of agricultural land, the park of tractors and agricultural machinery and the total production obtained South of Romania during 2005 - 2010, In: Agrarian Economy and Rural Development - Realities and Perspectives for Romania. 3rd Edition of the International Symposium, October 2012, Bucharest, The Research Institute for Agricultural Economy and Rural Development (ICEADR), Bucharest, pp. 170-174

This Version is available at:

<https://hdl.handle.net/10419/76830>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

DYNAMICS OF AGRICULTURAL LAND, THE PARK OF TRACTORS AND AGRICULTURAL MACHINERY AND THE TOTAL PRODUCTION OBTAINED SOUTH OF ROMANIA DURING 2005-2010

IVASCU TEODORA¹

Abstract:

The present situation of Romanian agriculture is characterized by many socio-economic problems, low yields and competitive, driven mainly by incomplete use of material resources, financial and human. Farms in Romania are extremely numerous and varied, and their physical size does not allow the application of appropriate technologies. Although some progress has been made to maintain an excessive number of individual farms, small and very small, inefficient, as a small number of large and very large units whose activity was not restructured to become compliant with the requirements of the single market.

Keywords: *agricultural holdings, agricultural land, agricultural land use, agricultural production.*

INTRODUCTION

Romanian agriculture is heterogeneous in terms of mining structures and their dual nature is emphasized to the vast majority of Member States of the European Union. During 2005-2010, the operating structures of Romanian agriculture had some developments, but poor in adapting to community needs and the superior resources that Romania has.

Agricultural potential of the South is generally very high compared to other agricultural regions of Romania. In terms of territorial agrozone plain is located in the counties of south, southeast and southwest and Bucharest-Ilfov area. This area has the highest percentage of arable land (40%) and includes the following counties: Braila, Constanta, Calarasi, Giurgiu, Ialomita, Teleorman, Dolj, Olt, Arad, Timis, Ilfov, including Bucharest.

MATERIAL AND METHOD

As shown in Farm Structure Survey in 2005 and 2007 and provisional data of the General Agricultural Census 2010 data published in June 2011, on the size and number of farms can list some relevant data. Also, the analysis presented in the Statistical Yearbook of Romania in 2011, data on the provision of agricultural machinery and equipment and total production obtained in the period 2005-2010 were obtained important information for the years studied.

Despite the high agricultural potential, agricultural products processing capacity is low due to outdated technology. Fragmentation of arable land in small portions is another obstacle to agricultural development. Low economic potential of small farms and poor management of agricultural enterprises caused underdevelopment agro-processing sector.

Agriculture is not adjusted to specific regional planning and financial crisis does not contribute to its development. Structure of a highly fragmented agricultural area is an obstacle in attracting new investment and low investment rates have increased vulnerability to weather conditions the Romanian agriculture and this sector induced highly volatile behavior.

¹ CS Ivascu Teodora, The Research Institute for Agriculture Economy and Rural Development, 61 Marasti Bvd, Bucharest, email: teodoraivascu@yahoo.com

RESULTS AND DISCUSSION

Distribution of total area and the utilized agricultural area of farms, as the legal status of farms, the total country and the south of Romania (Bucharest Ilfov + South Muntenia + South East + South West Oltenia), is as follows:

Table 1: Total area of farms, as the legal status of farms, the total development region South and country, in 2005, 2007, 2010
(Thousands of hectares)

Regions	Individual farms			Holdings with legal			Total		
	2005	2007	2010	2005	2007	2010	2005	2007	2010
South - East	1354	1316	1043	1125	934	1292	2237	2250	2387
Bucharest - Ilfov	74	65	29	113	131	46	187	196	76
South - Muntenia	1311	1299	1076	1125	1299	1338	2436	2417	2536
South - West Oltenia	1530	1400	1301	455	432	720	1986	1832	2043
Total Development Region South	4270	4081	3450	2820	2798	3397	6847	6698	7044
Total Romania	9886	9590	8193	5556	5673	7378	15442	15263	15866
Total Romania - %	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total South - %	43.2	42.5	42.1	50.7	49.3	46.0	44.3	43.8	44.3

Source: Farm Structure Survey, 2007 General Agricultural Census 2010

Table 2: Agricultural surface used by the legal status of farms, the total development region South and country, in 2005, 2007, 2010
(Thousands of hectares)

Regions	Individual farms			Holdings with legal			Total		
	2005	2007	2010	2005	2007	2010	2005	2007	2010
South - East	1303	1263	1012	848	924	1180	2151	2187	2193
Bucharest - Ilfov	68	61	23	109	126	39	177	187	62
South - Muntenia	1232	1218	1069	1093	1037	1264	2325	2255	2333
South - West Oltenia	1397	1292	1105	384	337	503	1782	1629	1608
Total Development Region South	4000	3834	3209	2434	2424	2986	6435	6258	6196
Total Romania	9102	8966	7445	4804	4786	5852	13906	13753	13298
Total Romania - %	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total South - %	43.9	42.7	43.1	50.6	50.6	51.0	46.2	45.5	46.5

Source: Farm Structure Survey, 2007 General Agricultural Census 2010

The analysis of data presented in the tables above it can be seen that the development region of Romania South focus and the total area utilized agricultural area of farms, almost half of the total farms nationwide. This shows that agriculture plays an important role in the study subject.

Total utilized agricultural area in the country, the agricultural year 2009-2010, was 13.298 million ha, of which 7.445 million ha (55.9%) fall on individual farms and 5.852 million ha (44.1%) farms with legal personality. South development across the region, we find that the same crop year UAA was 6.196 million ha, of which 3.209 million ha (51.8%) upon individual holdings and 2.986 million ha (48.2%), agricultural holdings legal personality.

Table 3: The utilized agricultural area by type of use, the total development region South and country, in 2005, 2007, 2010
(hectares)

UAA	South Development Region				Total development area	Total Romania
	South - East	Bucharest - Ilfov	South - Muntenia	South - West Oltenia		
Arable land						
2005	1665591,63	167221,06	1849490,0	1277350,48	4959653.17	8866591,66
2007	1671745,87	178546,29	1785603,13	1161421,28	4797316.57	8691343,47
2010	1717010,87	57411,56	1858329,61	1153681,50	4786433.54	8305473,64
Gardens						

UAA	South Development Region				Total development area	Total Romania
	South - East	Bucharest - Ilfov	South - Muntenia	South - West Oltenia		
2005	22179,12	2634,79	30110,67	15965,81	70890.39	170612,12
2007	25579,15	2671,84	27436,66	15822,97	71510.62	177944,58
2010	25024,34	1805,51	31119,50	17946,52	75895.87	181568,90
Pasture and meadow						
2005	374770,46	4614,26	374338,58	425967,61	1179690.91	4530298,46
2007	399745,16	4247,01	370114,21	395411,41	1169517.79	4540135,09
2010	370475,45	1865,66	380747,61	383003,81	1136092.53	4493902,47
Permanent crops						
2005	88666,91	3354,09	71821,27	63315,79	227158.06	339199,04
2007	90916,77	2231,25	72375,50	56837,28	222360.80	343623,35
2010	80499,07	1305,17	63099,28	53120,83	198024.35	317245,88
TOTAL						
2005	2151208,12	177824,20	2325760,52	1782599,69	6437392.53	13906701,28
2007	2187986,95	187696,39	2255529,50	1629492,94	6260705.78	13753046,49
2010	2193009,73	63287,90	2333296,0	1607752,66	6197346.29	13298190,89

Source: Farm Structure Survey, 2007 General Agricultural Census 2010

The analysis of data presented in Table 3 shows that most farms in Romania used as agricultural area, arable land, followed by those who use agricultural land and grassland pastures, permanent crops and the last, gardens.

On agricultural land use development in the region South of the farm structure survey data in 2005 and 2007 and the General Agricultural Census 2010 data reveals that farmland tops in the use of agricultural land, followed by pasture / hay, then permanent crops last, gardens.

Table 4: Agricultural holdings, agricultural area (UAA) UAA and the average returns on a farm after farm legal status of the total development area country and South in 2010

	Total farms		Individual farms		Holdings with legal		Utilized agricultural area (UAA) per average (ha)		
	number	SAU -mii ha-	number	SAU -mii ha-	number	SAU -mii ha-	On a farm	On an individual farm	On a farm with legal personality
South - East	459691	2193	455233	1012	3938	1180			
Bucharest - Ilfov	33047	62	32828	23	218	39			
South - Muntenia	800269	2333	793718	1069	5536	1264			
South - West Oltenia	576590	1608	573768	1105	2638	503			
Total Development Region South	1869597	6196	1855547	3209	12330	2986	3.3	1.7	242
Total Romania	3856245	13298	3820393	7445	30669	5852	3.4	1.9	190

Source: General Agricultural Census 2010

UAA that is, on average, on a nationwide farm is 3.4 ha. Individual farms lies, on average, 1.9 ha and farms 190 hectares legal personality.

Development in the region South UAA which is, on average, on a farm is 3.3 ha. Individual farm development in the South region lies, on average, 1.7 ha and farms 242 hectares with legal personality.

Investments in tractors and agricultural machines provide increasing levels of mechanization of agriculture. Mechanization is manifested as the main factor increasing agricultural production,

mechanization is provided decisive capitalization of other factors of production that enhances agricultural production (fertilizers, irrigation, agrobiological progress, etc.).

In terms of technical-material base in South Development Region may notice a slight increase in the number of basic equipment such as tractors, seeders, grain harvesters, representing an improvement of agricultural mechanization. By analyzing the table below notes that in the south is the number of tractors in the year 2010, 43% of the total number of tractors in the country. The level of endowment cultivators, seeders, harvesters is quite high in this area. Thus, the number of drills used in the South in 2010 is 35 763 which is 51.6% of the total number of seeders. Grain harvester combine totals in the South of the country, 12 243 which is 48.4% of total combined (25 285).

Table 5: Provision of agricultural machines and South development area compared to Romania

Categories of tractors and agricultural machinery	TOTAL South region (number)			TOTAL Romania (number)			Southern regions (%)		
	2005	2007	2010	2005	2007	2010	2005	2007	2010
Tractors physical	76687	77006	77528	173043	174003	180433	44.3	44.3	43.0
Plows for tractors	62917	63267	62514	137018	139782	142671	45.9	45.3	43.8
Mechanical cultivators	13930	13884	14138	27143	27262	27795	51.3	50.9	50.9
mechanical drills	34874	35073	35763	66732	67674	69337	52.3	51.8	51.6
Car spray and dust with mechanical traction	3591	3545	3776	5679	5876	5680	63.2	60.3	66.5
For self-propelled combine. harvested grain	12052	12036	12243	25055	24656	25285	48.1	48.8	48.4
For self-propelled combine. forage harvester	295	296	263	724	761	797	40.7	38.9	33.0
Presses for. straw and hay balers	2144	2276	2886	5028	5399	7181	42.6	42.2	42.6
Vindrovere feed	771	794	804	1224	1269	1233	63.0	62.6	65.21

Source: Calculations based on data from the Statistical Yearbook of Romania 2005-2010

Total production of main crops produced in the South was quite large oscillations. In 2007 there were small productions compared to the years 2005 and 2010. For example, cereal grains, in 2007 we obtained a total production 30% lower than in 2005 and 31% lower than in 2010, in the southeast region. Such small productions in 2007 were obtained and other cultures, such as: sunflower, soybean. Rape culture in the south-west is an increase in total production in 2007 by 40% compared to 2005. Rape culture in the south-west is an increase in total production in 2007 by 40% compared to 2005.

In terms of share of total production obtained in South Development Region productions obtained from nationwide to find that it is quite high. Thus, in 2010, obtained from cereal grains production share in total production in Romania is 59.3%. Moreover 78% of sunflower production in Romania was obtained in South Development Region.

Table 6: Dynamics of production of main crops in 2005-2010

The main crops	South East (thousands to)			South Muntenia (thousands to)			Bucharest-Ilfov Region (thousands to)			South West (thousands to)		
	2005	2007	2010	2005	2007	2010	2005	2007	2010	2005	2007	2010
Grains	3653	1096	3507	4115	1307	3878	217	47	117	3228	668	2348
Wheat	1188	532	1439	1997	702	1648	80	19	52	1557	311	1000
Barley	205	134	537	226	89	366	21	8,3	12	105	18	89
Maize	2220	397	1457	1841	439	1795	113	14	50	1519	315	1189
Sunflower	493	212	398	350	101	402	13	3	13	109	27	161
Soy	121	24	36	124	29	33	4	7	4	3,5	0,22	0,23
Rape	-	-	-	-	-	-	2	3	3	7,3	18	11
Potatoes	173	96	113	282	305	331	12	6	10	187	91	252

Source: Calculations based on data from Statistical Yearbook of Romania 2005-2010

Table 7: Total production obtained in the south compared to yields obtained in Romania

The main crops	TOTAL South region (thousand tons)			TOTAL Romania (thousand tons)			Southern regions (%)		
	2005	2007	2010	2005	2007	2010	2005	2007	2010
Grains	11213	3118	9850	19345	7815	16592	57,9	39,9	59,3
Wheat	4822	1564	4139	7341	3045	5753	65,7	51,3	71,9
Barley	557	249,3	1004	1079	531,4	1300,8	51,6	46,9	77,1
Maize	5693	1165	4491	10388	3854	8998	54,8	30,2	49,9
Sunflower	965	343	974	1341	547	1248	71,9	62,7	78,0
Soy	252,5	60,22	73,23	312,8	136,1	148	80,7	44,2	49,4
Rape	9,3	21	14	147,6	361,5	925,9	6,3	5,8	1,5
Potatoes	654	498	706	3738,6	3712,4	3276,5	17,5	13,4	21,5

Source: Calculations based on data from Statistical Yearbook of Romania 2005-2010

CONCLUSIONS

- South Development Region of Romania focuses as total area and utilized agricultural area of farms, almost half of the total national farm;
- Most farms in Romania used as agricultural area, arable land;
- The utilized agricultural area which is, on average, on a farm at the country level is 3.4 ha and the development region South UAA that is, on average, on a farm is 3.3 ha;
- Provision of tractors and agricultural machinery is relatively good in this area, they yet are low tech degree, feeling lack of investment, the purchase of new equipment with high performance.
- The main internal factors that affected and affects the production and marketing of agricultural products, causing agricultural balance of trade deficit are fragmented structure of farms and production uncertainty distribution and marketing integrated systems, oscillating volume production from year to year dismantled strategies export, a good example of this is the production of cereals. Also contributing to this lack of market information to the producers regarding especially quality standards.

BIBLIOGRAPHY

- [1] Farm Structure Survey 2005 and 2007;
 [2] General Agricultural Census 2010;
 [3] INS Statistical Yearbook of Romania 2011;