

DIAGNOSTIC ANALYSIS OF TIMIS COUNTY AGRICULTURE

Tabita Cornelia HURMUZACHE*

**Banat's University of Agricultural Sciences and Veterinary Medicine Timisoara,
Faculty of Agricultural Management, ROMANIA, calea Aradului Street, no. 119
e-mail: tabitaadamov2003@yahoo.com, tabitahurmuzache@usab-tm.ro*

Abstract. *Romanian agriculture has had an important role in structuring the national economy throughout the history and continues to be a factor on which depend the formation of market economic system. The contribution of agriculture to the general process of development is comparable to the industry and in a lower measure with the services sector unlike the developed countries where those became motor factor. In Timis County, agriculture is an important economic sector, both in terms of employment and in terms of contribution to Gross Domestic Product of the County and West Region. The agricultural sector offers investment opportunities due to large areas of agricultural land available, 81% of the County surface as well as soil quality. Although in present it is currently subcapitalised, is expected in the future to become one of the most attractive offers of economic cooperation of West Region for foreign investors.*

Key words: *agriculture, productions, workforce, assets*

INTRODUCTION

Agriculture is an activity that is different from other economic activities because, on the one hand agricultural activity is conditioned by biological evolution of plants and animals, and on the other hand it ensures the food security of the population.

Knowledge of national and EU funding programs for agriculture and rural development, of the CAP benefits and constraints which apply uniformly throughout the Community, the requirements of the new CAP reform in line with market developments, are aspects which require constant adjustment of managerial actions, circumscribed to the ultimate goal of all activity, meaning increasing the value of farms and thus farmers' income.

In Timis County, the agricultural sector offers real investment opportunities because of the potential he has. To this is added a number of important issues such as the high demand for organic products and high added value of their, grants for agriculture and advantages of joining the EU markets.

MATERIAL AND METHODS

For this paper we used methods like analysis, synthesis and comparison in time and space, witch ensured obtaining information on the main features and trends of economic phenomena studied and the development of a diagnosis of agriculture area studied.

RESULTS AND DICUSSIONS

Timis County is part of the West Region, along with Arad, Caras-Severin and Hunedoara counties. Timis County has an important role in the economic activity of the region, aspect evidenced by the high percentage that holds in the total regional GDP. In the year 2012, Timis County has made nearly half of the region's GDP, 48.65%, followed by Arad County, with 22.40%, Hunedoara County with 17.23% and Caras-Severin County with 11.72.

Agriculture remains also at the West Region level one of the major branches of the economy. Thus analyzing the agricultural area of the region, we find that it represents 12.80% from the total agricultural area of Romania, having great potential for capitalizing.

Table 1.

Structure of agricultural area, 2012

	Total area	Agricultural area	of which arable area	Non-agricultural area	of which forests
Romania	23839.1	14615.1	9392.3	9224.0	6746.9
West Region	3203.3	1867.4	1090.3	1335.9	1105.9
Arad County	775.4	497.5	349.3	277.9	218.8
Caras-Severin County	851.9	396.9	129.6	455.0	411.4
Hunedoara County	706.3	280.7	79.2	425.6	366.2
Timis County	869.7	692.3	532.2	177.4	108.5

Source: Anuarul Statistic al României, 2013

The regional differences are observed in terms of agricultural area, spread over four counties. Thus, Timis and Arad counties, holding 63.71% of the agricultural area of the region, due to the presence within these counties of the West Plain, while in the other two counties topography is predominantly hilly and mountainous relief, but with large forest resources.

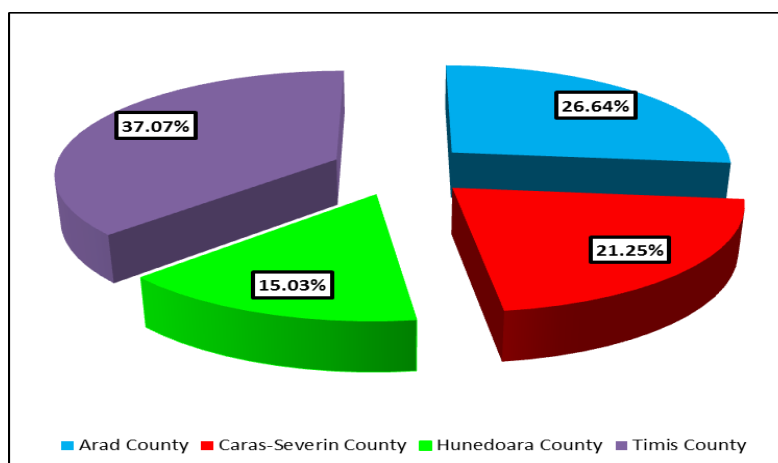


Figure 1. Structure of the agricultural area of the West Region, by counties, 2012

The agricultural area of Timis County is 692,301 ha and represents 79.61% from the total area of the County. At regional level, Timis County has the largest agricultural area, occupying 37.07% from the agricultural area and 48.80% from the arable land. Compared nationally, Timis County holds 4.73% from the total agricultural area and 5.66% from the arable land.

Structure by categories of use of the agricultural area is: 76.86% arable land, pastures 17.24%, 4.10% meadows, vineyards and orchards 0.59% 1.21%.

In the West Region, Timis and Arad counties manifest an important role in the industrial sector but also in the agriculture, given the wide suitability of land for agricultural production and great favorability of arable land for cereal crops, technical, fodder legumes.

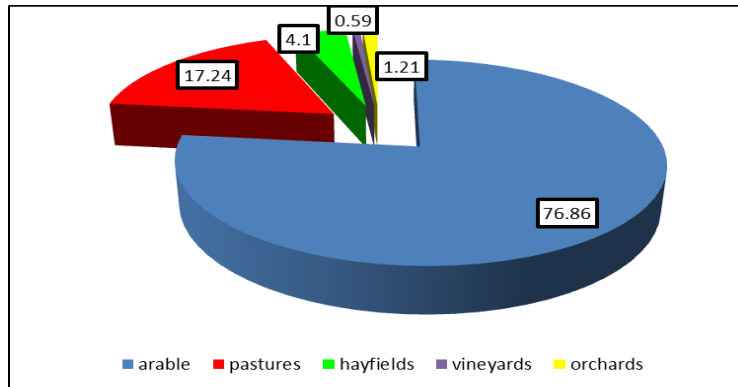


Figure 2. Structure of agricultural area of Timis County, 2012

Production structure faithfully reflects the structure of existing production resources in the area. Plant branch has the highest share in farms from Timis County, situation existent at national and regional levels. For future is desired the reversal of the share of the two components (crop and livestock) in global agricultural production structure. This is explained by the need to integrate the two main branches, economic process that creates the conditions for obtaining additional values.

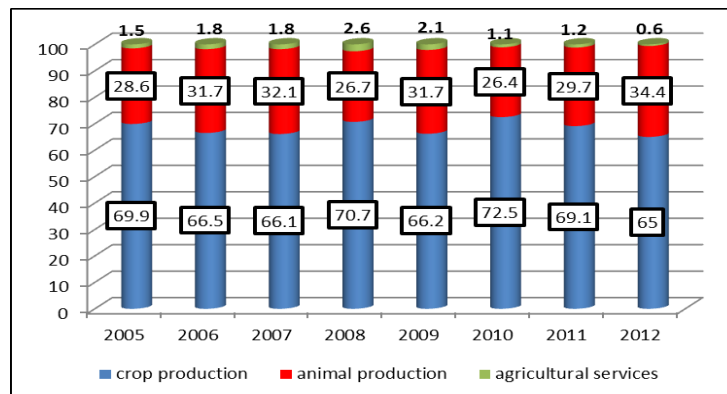


Figura 3. Structura producției agricole, 2005-2012

In year 2012, the value of crop production represented 65.0% from the total agricultural production, animal production and agricultural services 34.4% just 0.6%, lowering from previous years.

Cultivated area represents 77.3% from the total arable area, Table 2. Compared to year 2005, the cultivated area was reduced to 39,302 ha. The phenomenon of steady decline in the total area planted is probably generated by the phenomenon of expanding the city limits.

Table 2.

Structure of cultivated areas in Timis County, 2005-2012, ha

	2005	2007	2009	2010	2011	2012
Cultivated area1 - total	450720	393323	384000	370833	423274	411418
Cereals for grains	343855	280291	306890	283103	329315	331691
Wheat and rye	133221	139008	126993	128054	124709	111316
Barley and two-row barley	45085	23043	30657	24773	24813	14410
Oats	19496	12416	10093	8109	7765	4385
Maize grains	14.955	101609	132954	116888	166561	192797
Dried pulses	1644	1706	437	91	274	296
Peas	584	166	52	52	175	86
Dried beans	980	1540	385	21	99	177
Oilseed crops	47016	62689	38963	49579	53054	35888
Sunflower	41537	33539	28645	34582	29697	30513
Soya beans	4980	23944	1049	2190	6377	.000
Sugar beet	1098	20	-	-	91	716
Potatoes - total	10853	12268	7514	7126	8240	8298
Vegetables - total	12359	12926	9545	9554	10933	11556
Tomatoes	1901	1716	1538	1577	1727	1634
White cabbage	2769	2762	2279	2173	2910	3061
Green fodder from arable land	34497	24998	22763	23446	24462	26526
Perennial fodder	17009	20124	18262	18048	18770	17871
Annual green fodder	17488	4874	4501	5398	5692	8655
Fodder roots	1011	1177	525	584	675	274

Source: Anuarul Statistic al României, 2013

The area cultivated with cereals for grain, was in year 2012, of 331,691 ha, accounting the largest share of the total cultivated area (80.62%), increasing with 0.72% compared with previous year. In grain cereals group all crops except corn grain (+ 15.75%) recorded decreases from the previous year.

Smaller surfaces destined to potato crops (8.298 ha), sunflower (30513 ha), vegetables (11556 ha) involves possession of some small weights of these crops 2.05%, 7.42% and 2.81%. After a continuous decrease of areas with sugar beet in 2008, this being removed from the culture, and in year 2011 it restart cultivation, reaching in 2012 an area of 716 ha.

Regarding the surfaces for different cultures it can be seen their variation from year to year, with direct implications on the production obtained, variation under the effects of decrease of the total area cultivated, Table 3.

Cereal grain production has fluctuated to some crops like barley and wheat due to problems arising during sowing: weights with plowing after the autom crops, shortage of tractors climatic conditions.

Total production of cereals shows a fluctuating trend. During the 2005-2008 period, knows a decrease of 39.42% after that show an upward trend in grain production. In year 2011 the production of grain cereals reached the level of 1,416,496 tons, up with 9.5% compared to 2005 and in year 2012, the production decreases by 24.35% over the previous year. Production of barley has its values oscillating in time, the lowest value reached was recorded in year 2012

when it was obtained a production of 53,545 tons, while in the previous year was up with 71.69% compared to year 2010.

Table 3.

Crop production, to the main crops 2005-2012, tons

	2005	2007	2009	2010	2011	2012
Cereals for grains- total	1292947	783249	933988	983183	1416496	1071496
Wheat and rye	469726	405771	382567	373680	521265	459445
Barley and two-row barley	127698	55498	79322	60686	104193	53545
Oats	34801	15758	78803	11216	23710	10905
Maize grains	656229	297280	438132	521823	744638	522345
Dried pulses	2010	1223	427	100	545	389
Peas	833	119	65	78	390	101
Dried beans	1177	1104	362	22	155	222
Sunflower	70082	38059	56862	54625	72001	58570
Soya beans	12677	35390	1477	3984	7839	4842
Sugar beet	33538	340	-	-	3406	22184
Potatoes - total	135777	180903	110072	115402	126392	129310
Vegetables - total	150978	174757	113164	157140	163428	152823
Tomatoes	24996	21842	19298	15666	25089	21647
White cabbage	48064	61364	36522	39046	55744	20844
Perennial fodder	492778	309048	313728	340492	359894	225938
Annual green fodder	165199	70683	58986	79428	92784	124979
Fodder roots	25194	35534	13913	14839	18522	3562

Source: Anuarul statistic al României, 2013

Regarding maize production, the highest production was obtained in year 2011 when it was obtained a production of 744,638 tons, and the lowest production was obtained in 2007, meaning 297,280 tons.

Vegetables and potatoes culture are done on surfaces that belong entirely to the private sector, small producers preferring these types of crops that are suitable to be grown on lower surfaces. Potato culture has suffer small changes from year to year, but was sufficient to meet consumption needs, the highest production obtained after 1990 being 180,903 tons, which was made even in 2007, after then decreases until 2009, from 2010 following an upward trend. In 2012, potatoes production was 129,310 tonnes, up by 17.48% compared to 2007.

Areas cultivated with vines are reported in most villages from the plains and hills areas of the County. Viticulture is practiced in private households, but also in the vineyards of Recaş, Teremia, Buziaş Giarmata.

The production of vegetables in households is, also, a traditional economic activity especially in rural areas adjacent to urban centers. The evolution of vegetable production showed a different trend from year to year in the last three years with a decreasing trend. In the analysed period, vegetable production, decreased until 2009, with 25.05%, then begin to rise.

Livestock is an important branch of Timis agriculture, featuring tradition special in raising pigs and cattle. In the pastures areas from northern and north-eastern of the County is growing also sheeps.

Timis County has capabilities of processing, of agricultural products of animal and vegetable, and has a great potential for economic cooperation, supported by the existence, in the County of necessary materials and by a outstanding market.

The evolution of livestock is similar to the national level one. After 1990 there is a general downward trend of the number of head of cattle across species decline due to uncontrolled slaughter after 1990, by the aging of population, which has dropped gradually to grow animals, and decreased interest in practicing this activities due to difficulties encountered in financing.

Table 4.

Livestock 2005-2012, thousand heads								
	2005	2006	2007	2008	2009	2010	2011	2012
Cattle	57.5	61.9	61.6	52.1	48.0	38.0	36.2	38.9
- cows, buffalo cows and heifers	35.9	39.1	36.6	30.2	30.0	26.0	21.9	24.3
Pigs	361.8	529.4	579.0	562.3	588.5	550.0	578.8	595.2
Sheep	417.1	443.6	522.3	510.3	527.9	549.8	541.0	564.8
Goats	6.5	6.7	18.3	16.9	16.3	15.6	14.9	15.7
Horses	14.5	16.3	15.6	12.1	8.7	6.6	6.9	7.1
Poultry	2071.1	2064.0	1987.4	1890.0	2012.0	1528.2	1566.2	1741.6
Bees (thou families)	14.7	27.6	27.0	28.9	29.4	35.1	34.7	34.5

Source: Anuarul statistic al României, 2013

Cattle have a relatively constant evolution since 2000, not existing large differences from one year to another. Thus, while in year 2004 their number decreased by 4363, in next year increased by 350 heads, reaching in year 2006-61899 heds. The lowering trend was maintained until 2011, the number of cattle decreased with 37.04% during 2005-2011 period. In year 2012, there is an increase with 7.45% over the previous year.

From the cattle total, an important category represented by cows, buffaloes and heifers has experienced an upward trend, reaching in 2006 to be 13% more than in year 2002 meaning 39101 heads. Also in the case of dairy cows can highlight a downward trajectory, the reduction of this effectives being of 37.85% in the last period 2006-2012.

In terms of density of animals per unit of area, the situations are different, compared to those recorded at national level. Thus, in year 2012, to the bovine species, at the Timis County level, returning to 100 ha 5.8 heads, while at national level is register a higher load, 20.4 heads. For the other two species examined, pigs and sheep, the average at County level is above the national average, 106.2 heads/100 ha compared with 70.8 heads/100 ha, meaning 87.0 heads/100 ha compared with 74.3 heads/100 ha.

Pig herds have increased gradually each year recorded a slight increase to 10% by the year 2009. It is followed a tortuous path in year 2012, reaching 595,247 head, up by 64.51% compared to the year 2005.

Sheep effectives have slightly increased every year except the years 2008 and 2011 when there was slight decreases. In year 2012 is recorded a total number of 564,796 head, up with 35.41% compared to year 2005.

During the four years analyzed, we see an annual increase in the number of goats from the County until 2007, when they begin to fall. Thus, in 2007-2011, sheep effectives decreased by 18.58%. In year 2012, there is a slight increase of 5.37% over the previous year.

Making a national analyze, comparative to other counties, where many farms were closed and rural population has gradually abandoned livestock activity, in Timis County has been a positive trend of livestock, starting with year 2003. An important role in this

development was played by the financial support that has started to be granted to breeders correlated with the existence of markets for livestock products.

Efforts made by farmers from the County, have resulted from obtained production, production for own consumption destined primarily to own needs but also to the consume needs manifested on the market. 99% of the production is done in the private sector, particularly in individual households of the population.

Table 5.

	Meat			Milk total (thou hl)	Eggs (mill. pcs.)	Extracted honey (tonnes)
	Total (thou tonnes)	Pork (thou tonnes)	Poultry (thou tonnes)			
2005	45458	26445	5901	1175	190	304
2008	73912	60167	3195	988	187	414
2009	91035	80064	4042	929	185	473
2010	89653	78812	2199	907	169	544
2011	102066	88231	3521	807	169	617
2012	106029	93826	4384	745	179	587

Source: Anuarul statistic al României, 2013

Analysis of animal agricultural production shows, in the period 2005-2012 that is characterized by the following aspects:

- ❖ Total meat production has increased for the entire period, except for 2010 when there is a decrease. For the period 2005-2012, the growth rate is 133.25%;
- ❖ The same trend is recorded for the production of pork meat. In this case, the growth rate was 254.8%;
- ❖ Poultry meat production has manifested a fluctuating tendency, in year 2012, poultry production being 25.71% lower than that obtained in 2005;
- ❖ Cow milk production has decreased continuously, in the 2005-2012 period, the rate of decrease was 36.6%;
- ❖ Egg production decreased continuously until 2010, with 11.05% in year 2012, being observed a slight increase of 5.921%;
- ❖ Honey production, at the Timis County level, manifested an upward trend during the 2005-2011 period, this indicator increased by 102, 96%. For year 2012, is registered a slight decrease of 4.86% from the previous year.

Efforts made by farmers from the County have resulted in production obtained, production destined primarily for own consumption but also for the needs of consumer manifested on the market. 99% of the production is done in the private sector, particularly in individual households.

Table 6.

	2005	2007	2009	2011	2012
Physical agricultural tractors total	10183	10426	10457	10453	10530
Tractor-drawn ploughs	8368	8457	8422	8431	8431
Mechanical cultivators	2672	2644	2529	2511	2530
Mechanical seeders	5444	5480	5433	5448	5448
Self-propelled combines for cereals harvesting	1484	1404	1387	1396	1411
Self-propelled combines for fodder harvesting	32	30	30	28	28
Arable land resting on a physical tractor	52.0	51.0	51.0	51.0	50.5

Source: Anuarul statistic al României, 2013

Analysis of technical resources from Timis County agriculture is presented in Table 6. the specific infrastructure for development of agricultural activity consists of a park of tractors and agricultural machines, which ensure the modernization and mechanization of farming and the storage of grain, and collection points or irrigation systems.

Technical equipment of the Romanian agriculture follows broadly the situation existent at national level. Regarding the number of tractors and plows, from the analyzed period, it increased by 3.41% for tractors and to 0.75% for plows.

In terms of arable land that lies on a tractor, the values recorded at the County level are lower than those at the national level. Thus, in year 2012, at national level was registered a load of 54.16 ha/tractor, while at the County level, the area assigned to a physical tractor is only 50.5 ha. This has shown a particular interest shown by the manufacturer to the equipment and to modernize their own business.

The support granted for European Union through different programs aimed encouraging the development of agricultural activities has the effect of increasing the availability of equipment for Timis County agriculture, new equipment being more efficient and having a higher productivity.

Also, in recent years, it can be seen the increasing of interest of economic operators to obtain authorization and licensing of corn deposits, as an instrument of market regulation of seed consumption market. At Timiș County level in year 2012, were registered, four such operators in Sannicolau Mare, Jebel, Timisoara and Gataia, with capacities ranging from 30,000 to 55,000 tons.

CONCLUSIONS

Agriculture as an economic branch is not limited only to ensure necessary food, it is a more complex economic sector, which gives them feature of multifunctionality.

Knowledge of national and EU funding programs for agriculture and rural development of the CAP benefits and constraints which apply uniformly throughout the Community, the requirements of the new CAP reform in line with market developments, are matters which require constant adjustment of managerial actions, circumscribed to ultimate purpose of all activities, meaning increasing the value of farms and thus farmers' incomes.

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