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RESEARCHES ON THE CAPACITY OF MARKETING AGRICULTURAL CROP PRODUCTION IN THE SOUTH-WEST OLTENIA REGION

Ana Ruxandra MICU, Valentina TUDOR, Eduard Alexandru DUMITRU

University of Agronomic Sciences and Veterinary Medicine Bucharest, 59 Marasti Boulevard, District 1, 011464, Bucharest, Romania, Phone: +40213182564, Fax: +40213182888, Mobile: +40744647410, Emails: micuanaruxandra@yahoo.com, valentina_tudor@yahoo.com, dumitru.eduard@iceadr.ro

Corresponding author: dumitru.eduard@iceadr.ro

Abstract

Further, the vegetal sector encounters serious problems and is often dependent on a number of factors such as climate, whether the crops are irrigated or not. This factors can make a difference between gain and loss. There are other factors such as economic factors where this market is extremely volatile, but also a number of other factors described in this paper. This case study was carried out on a sample of 60 farms with a vegetal profile showing the level of this region compared to the national average, identifying the main strengths and weaknesses that farmers in this region have. Account should also be taken of the marketing capacity of agricultural crop production. Interviewing the representatives of 60 agricultural crops we could analyse a number of relevant issues for this sector through which we can contribute with a series of solutions and recommendations.

***Key words**: agriculture, agricultural holdings, vegetable sector*

INTRODUCTION

South-West Oltenia is located in the south-western part of Romania, comprising 5 counties (Dolj, Olt, Vâlcea, Mehedinţi and Gorj), and the relief from the south of the region favors agriculture, Oltenia is a traditional area in plant cultivation. [1] [3] [5]
This region is characterized by moderate temperate continental climate, with the mention that in Mehedinţi County there is a moderate temperate continental climate with submediterranean influences, which causes the winters to be milder. [2] [4]
Regarding the hydrographic network, this region is crossed by a series of important rivers such as Olt and Jiu, but also by the Danube River. At the same time the soil types are suitable for crops, comprising clay soils, soils brown and reddish brown forest soils and alluvial soils chernozem type (favorable for vegetable crops). [6] [7] [8]
In the South-West Oltenia region of the 2.2 million inhabitants, more than 50% of them are in the rural area and the area of the region is 29,212 km2. Also, the agricultural area in 2014 was over 1.79 million hectares, of which almost 70% in the utilization category. [9] [10].

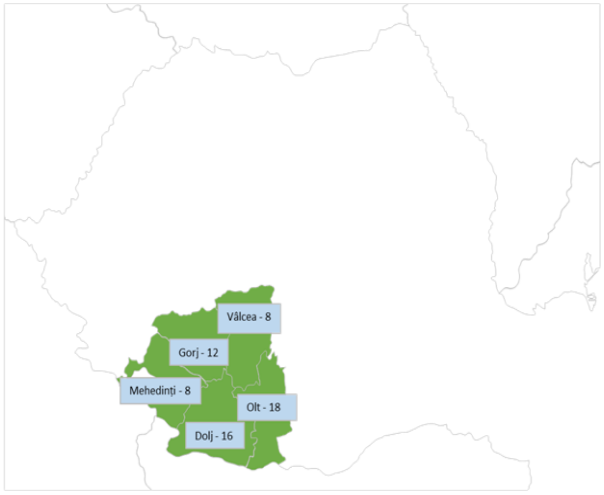


Fig. 1. Distribution of respondents by county
Source: processing own data.

They were interviewed to obtain data 60 representative of the profile of the agricultural farms in South-West vegetable Oltenia. Using this indirect method, a qualitative research was carried out on the situation of this plant sector in the South-West Oltenia Region compared to the data recorded at national level. We note that 15 relevant questions were

addressed, determining the profile of the respondent, among which we note the following:
-Male, over 45 years old;
-No higher education;
-It has a medium-sized holding;
-It has a turnover over of 150,000 euro/year.

MATERIALS AND METHODS

Research is based on information gathered from farmers in the South-West Oltenia region, using the interview method, consisting of a set of 15 questions applied to 60 interviewees. The data obtained through the interview were compared with data retrieved by the Ministry of Agriculture and Rural Development and the National Institute of Statistics. The quantitative and qualitative method has also been used in the present paper, using technical and economic indicators such as: production, average output, average price, income obtained.

RESULTS AND DISCUSSIONS

Analysing the structure of the sample we can see that of the cultivated area by the 60 farms studied (17,907.13 hectares), 58% is cultivated with cereals, 37% with oil plants and 5% with leguminous plants. In terms of cereals, the respondents opted, especially for the cultivation of wheat and corn, with a weight of 34% and 21% respectively of the total area exploited by these farms with vegetal profile (Figure 2).

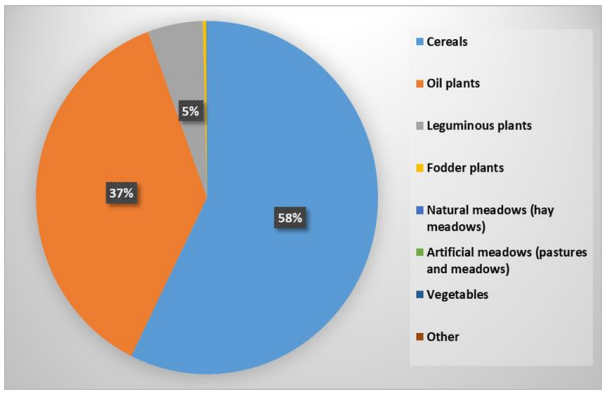


Fig. 2. Structure of crops for the year 2017 in the South-West Oltenia Region
Source: own calculations.

Also, in the case of oil crops, the preferred plants by the South-West Oltenia farmers were rape and sunflower, accounting 19%, respectively 18% of the total area cultivated.
Comparing the national average production with that of the interviewed group (South-West Oltenia Region), we can see that in the case of wheat, sunflower and corn crops the yields are similar (wheat - 4.8 t/ha, sunflower - 2.7 t/ha, corn 5.8 / 5.6 t/ha) (Figure 3).

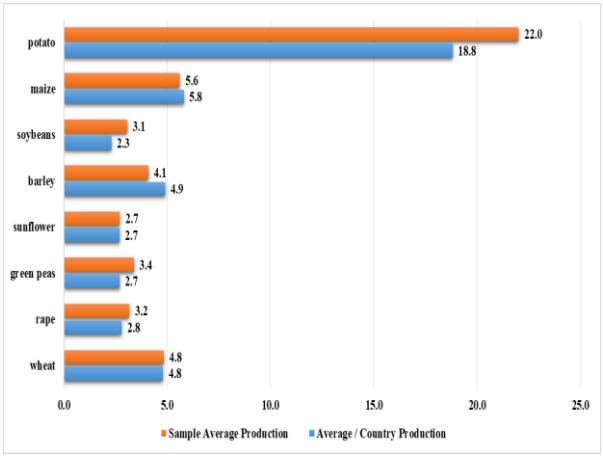


Fig. 3. Comparative analysis of the yields recorded in 2017 for the main crops taken into account (tone / hectare)
Source: MADR data, own calculations;

In the case of barley and barley crops, there is a significantly lower production for farmers in the South-West Oltenia region, which obtained an average of 4.1 tonnes per hectares, compared to the national average production of 4.9 tonnes/ha in 2017 (Fig. 3).
In contrast, for the other cultures surveyed, the average production at the sample level was significantly higher than the national average production, so for the rape crop the difference was 13.2%, the peas 25.6%, 33.5% soybean, 17% in favor of the productions registered by the farmers in the South-West Oltenia region (Fig. 3).
Concerning average prices, it is found that the average prices obtained by farmers in South-West Oltenia were significantly lower than the average recorded by local authorities. For example, in the case of potato crops, where the largest difference is recorded above 160%, the average selling price was only 500 lei/tons compared to the average country price over 1,300 lei/tons (Fig. 4).

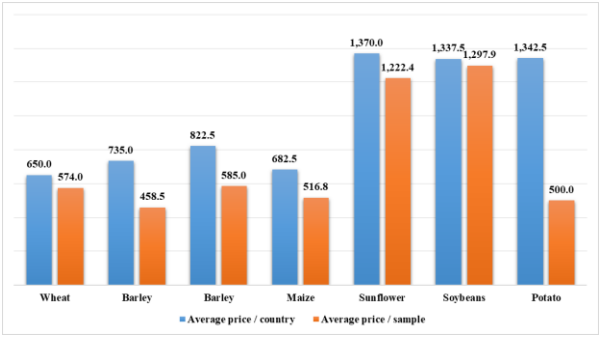


Fig. 4. Comparative analysis of average prices obtained in 2017 for the main agricultural crops (lei / ton)
Source: MADR data, own calculations.

Another major difference was recorded in the case of barley crops, which in 2017 the average country price was of 735 lei/tons (about 60% higher), compared to the average price obtained by farmers in the South Region -Vest Oltenia which was 458 lei/tons (Fig. 4).
The smallest price difference was recorded for soybean production, where the average country-wide average price was 3.1% higher than the average farmer's price in South-West Oltenia (Fig. 4).

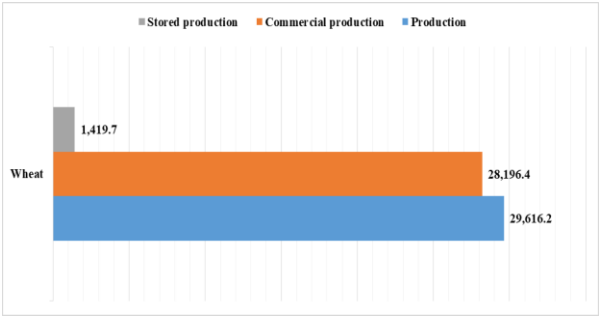


Fig. 5. The degree of marketing of wheat production obtained in 2017 in the South-West Oltenia region
Source: Interview Data Processing.

Analyzing the level of marketing of wheat production made in 2017 in the sample analyzed, we see that the total amount of wheat produced by 29,616.2 tons to the amount of 28,196.4 tons marketed and sold by over 95% of the production obtained, while only 5%, representing 1,419.7 tons, was stored for subsequent commercialization (Fig. 5).
Analyzing the degree of marketing of the maize production obtained in 2017 in the analyzed sample we can see that from the total quantity of 20,885.8 t corn produced 13,940.4 tons.

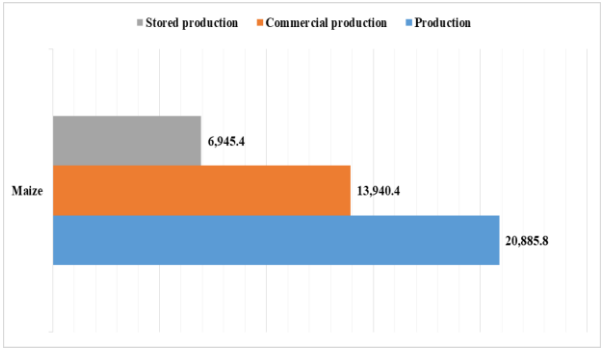


Fig. 6. The marketing degree of the maize production obtained in 2017 in the South-West Oltenia region
Source: Interview Data Processing.

This means that about 66.7% of the remaining 33.3%, representing 6,945.4 tonnes, was stored for subsequent commercialization (Fig. 6).

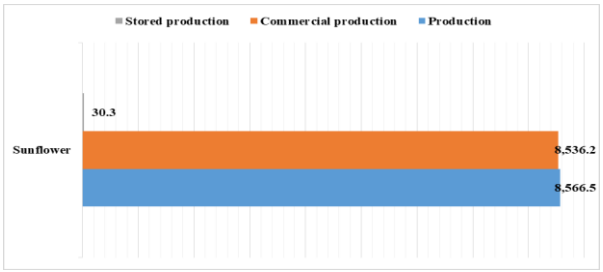


Fig. 7 . The marketing degree of sunflower production obtained in 2017 in the South-West Oltenia region
Source: Interview Data Processing.

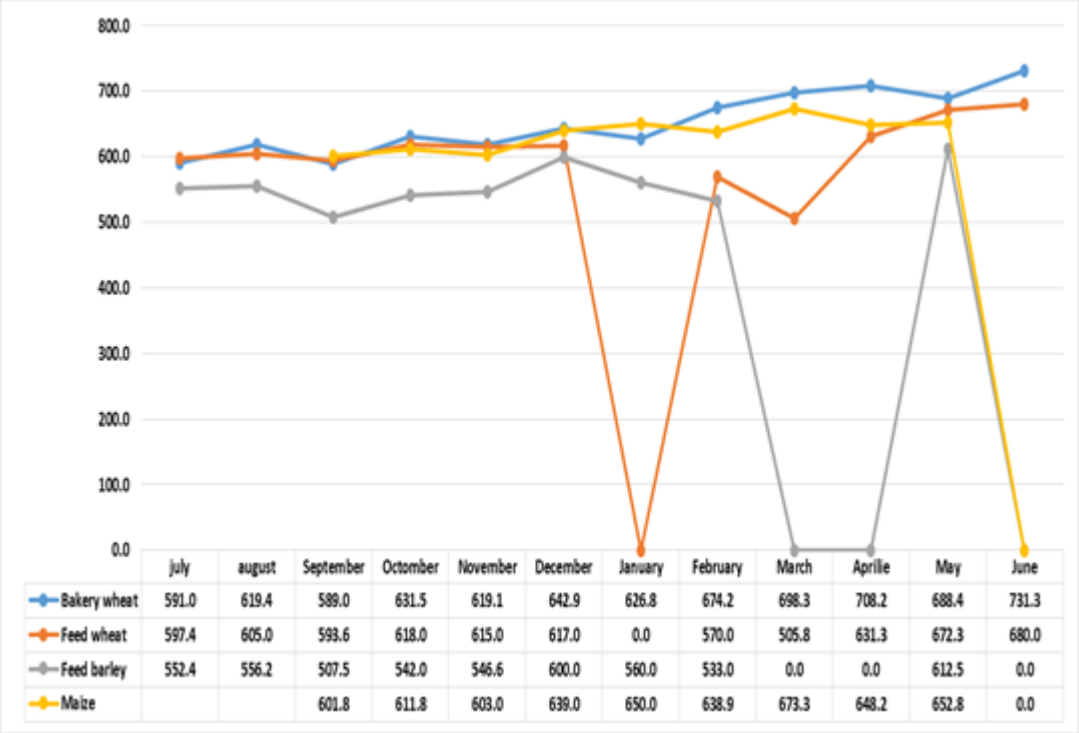
Analyzing the commercialization of the sunflower production obtained in 2017 within the analyzed sample, we can see that of the total quantity of sunflower produced of 8,566.5 tons, a quantity of 8,536.2 tons was sold, selling thus about 99% of the production obtained, while the remaining 1%, representing only 30,4 tons, was stored for subsequent commercialization (Fig. 7).

Table 1. The degree of marketing of other vegetable crops in the South-West Oltenia region

Culture	Production (tons)	Traded production (tonnes)	Stored production (tons)	The degree of marketing of total production (%)
Rape	11,036.9	11,036.9	0.0	100.0
Barley	1,015.8	941.5	74.3	92.7
Oat	133.4	109.5	23.9	82.1
Potato	3,0	31.0	0.0	100.0
Green peas	2,072.4	2,072.4	0.0	100.0
Soybean	932.8	932.8	0.0	100.0

Source: Interview Data Processing.

In the case of other crops, we can see a 100% marketing level such as rape, potatoes, peas or soybeans, while only cereal crops such as barley and oats have a marketing degree of 92.7% and 82.1% (Table 1).



	july	august	September	Octomber	November	December	January	February	March	Aprilie	May	June
Bakery wheat	591.0	619.4	589.0	631.5	619.1	642.9	626.8	674.2	698.3	708.2	688.4	731.3
Feed wheat	597.4	605.0	593.6	618.0	615.0	617.0	0.0	570.0	505.8	631.3	672.3	680.0
Feed barley	552.4	556.2	507.5	542.0	546.6	600.0	560.0	533.0	0.0	0.0	612.5	0.0
Maize			601.8	611.8	603.0	639.0	650.0	638.9	673.3	648.2	652.8	0.0

Fig. 8. The evolution of the average trading price on the main representative markets (FOB Oltenia (lei/to)
Source: General Directorate of Customs, Romania.

Analyzing the evolution of the average trading price on the main representative markets for bread wheat for the year 2017, the optimal trading month was June (one month before the new production), obtaining an average price of 731.3 lei/ton (Fig. 8.).

And if used as feed wheat is observed that the best trading month was June with an average price of 680 euro/ton (Fig. 8.).

Table 2. Estimates of incomes obtained by farmers in South-West Oltenia

Culture	Prod.	Aver. price	Aver. trading price FOB Oltenia	Rev. obtained	Rev. obtained FOB Oltenia	FOB differ. / Rev. obtained %
	(tons)	(lei/tons)	(lei/tons)	lei	lei	%
Wheat	29,616.2	574.0	731.3	16,998,787.4	21,658,001.6	27.4
Maize	20,885.8	516.8	680.0	10,794,204.3	14,202,350.8	31.6
Barley	1,015.8	458.5	673.3	465,704.7	683,965.3	46.9

Source: Interview Data Processing.

Estimating revenue of farmers in the study of the South-West Oltenia, we can say that if they had chosen to vandals production period would be best achieved total revenue of 21,658,001 lei, 27.41% more than in the case of the sale of the production immediately after the harvest at the price of 573.97 lei/tons (Table 2).

As far as maize production is concerned, by FOB trading, revenue would have been higher by 31% than in the case of post-harvest sales of production. The same situation is encountered in the case of barley crops, where the revenues would have been over 46% higher, reaching the value of 683,965 lei,

compared to the income obtained by selling it immediately after the harvest (Table 2).

CONCLUSIONS

The South-West Oltenia region enjoys favourable conditions for the cultivation of fertile plants, especially for cereals and oil plants. Noteworthy the high share of oil crops, influenced by the high sales price, but also especially the sales markets for these products.

However, we note that average yields for cereal crops, average country production is higher than average production at the sample level, due to the poorly developed irrigation system in this region, which influences the produced productions. However, in the case of rape, average sample production was higher than average/country production, where climatic factors were a key factor.

Concerning the average selling price of agricultural products, there are significant differences, so that for all the analysed crops, average/country prices exceed average prices/sample, influenced by a number of important aspects such as negotiation power, of the trading points, in the context of the place where grain trading is located at the Constanta Port at a significant distance from the South-West Oltenia Region. Another important factor determining the sales price is the quality of the products sold compared to what is on the market.

It is noticed that farmers in the South-West Oltenia region choose to store certain agricultural products for marketing in the optimal periods of the year in order to obtain a better selling price. In order to obtain the best selling price, an essential criterion is the conditioning, sorting and storage facilities, but the construction of these facilities is quite expensive, given that farmers choose sale of production from the spot to pay the loans taken is to set up crops or to set up future crops.

Revenues from the storage of agricultural products and their sale during the optimum period would bring considerable profit, but this is hardly to be implemented by the Romanian farmer, which has a number of problems that prevent him from doing so.

A viable solution for increasing the profitability of these holdings in the South-West Oltenia region would be their association, which would allow them to acquire inputs at more attractive prices, but also to build storage facilities. The use of maritime transport on the Danube would significantly reduce the transport costs in the South-West Oltenia region in Constanta Port, but for this purpose facilities should be created by the Romanian state, taking into account any changes of any kind.

Also, the repositioning of Russia in the top of the grain exporters with a well-established program and by massive investments in agriculture lately, make the price demanded by Romania somewhere on the same level, especially in a market where the main selection criterion is the price.

REFERENCES

[1]Bădescu, I., Cucu-Oancea, O., Şişăan, 2009, Treaty of rural sociology. Sociology Institute of the Romanian Academy, Bucharest, pp.285.

[2]Bold, I., Buciuman, E., Drăghici, N., 2003, Rural - definition, organization, development, Bucharest, pp.135.

[3]Bîrzan, O., 2007, Rural development, Publishing Ceres, Arad, pp.133.

[4]Burcea, M., Micu, M.M., 2010, Size and characterization of agricultural holdings in Romania reported in EU - 27, Scientific Papers Series "Management, Economic Engineering in Agriculture and Rural Development", Volume 10(1)2011, 22-25.

[5]Doltu, C., 2011, The Countryside between Survival and Business Opportunities, Publishing Ceres, Bucharest, pp. 42.

[6]Dona, I., Dobre, C., Gergely, S., 2005, Rural development, Publishing Ceres, Bucharest, pp. 122

[7]Lukas Zagata, Lee-Ann Sutherland, 2015, Deconstructing the young farmer problem in Europe: Towards a research agenda, Journal of Rural Studies 38:39-51.

[8]Micu, M.M., Bercu, F., Sanda, G., Nistor, E., 2010, Effects of Romanian agriculture alignment to P.A.C., Scientific Papers "Agricultural economics and rural development - reality and prospects for Romania", Bucharest, pp. 26-30.

[9] Micu, M.M., Tudor, V., 2012, Distribution of farms and utilized agricultural area of Romania by the size classes according to legal personalities, Scientific Papers Series "Management, Economic Engineering in Agriculture and Rural Development", Volume 12(1):127-132.

[10]Rovny, P., 2016, The analysis of farm population with respect to young farmers in the European Union, 19th International Conference Enterprise and Competitive Enviroment 2016, March 2016, Brno, Czech Republic, Procedia - Social and Behavioral Sciences 220 (2016) 391 – 398.