

## THE ANALYSIS OF PRODUCTION FLUCTUATION, CARRIED OUT IN 2019, ON A GROUP OF VARIOUS ECONOMIC SIZED ENTITIES

Adina- Nicoleta FLOREA, Nicoleta MATEOC –SÎRB

University of Agricultural Sciences and Veterinary Medicine "King Mihai I of Romania" from Timisoara, 300645, 119 Calea Aradului, Romania, Phone: +40256277001, Fax:+40256200296, Emails: adina2afaccount@yahoo.com, mateocnicol@yahoo.com

*Corresponding author:* mateocnicol@yahoo.com

### Abstract

*The aspects related to the productions obtained by the agricultural entities highlight significant quantitative discrepancies and need a more detailed analysis of the causes that led to this state of fact. Our research is based on information obtained from the field, by interviewing farmers and recording the information obtained in the background notes of this work. The results obtained have led to the shaping of conclusions that highlighted legal and administrative issues related to the conventions or other agreements-type of collaboration, by which the use of lands is transferred, creating over-productions or decreased productions and thus, an artificial economic situation and, most of the time, the impossibility of correct reporting to APIA (Agricultural Payments and Interventions Agency). The conclusion of the research work and the one also shared by the farmers is to grant the subsidy only to those that actually produce and work the land.*

**Key words:** agriculture, grain production, subsidy

### INTRODUCTION

Our research begins from the analysis of the information obtained in practice, correlating it with the farmers' grievances related especially to the impossibility of certification by APIA of the exchanges between those who are in the temporary possession of lands, the lessees [4]. The purpose of these exchanges is to work the land on larger areas, as much as possible to eliminate unnecessary costs on small parcels and last but not least to gather increased economic efficiency.

### MATERIALS AND METHODS

The methods used are specific to economic research, namely, the collection and selection of material, processing, comparison, observation and drawing conclusions. The material used is mostly the result of research and studies carried out by the authors.

Our research is based on information obtained from the field, by interviewing farmers and recording the information obtained in the background notes of this work.

### RESULTS AND DISCUSSIONS

In our task, the object of research is a sample of six economic entities, of different sizes, located in geographical areas relatively close to Timiș County. The research was made for the agricultural year 2018-2019.

**Entity I** is an authorised natural person that carries out its activity within the Deta Commune. The worked area allows the farmer to carry out its activity without additional personnel costs.

The farmer's policy is to cultivate a heterogeneous production, trying to mitigate the risk of a poor harvest in the detriment of the homogeneous ones.

**Entity II** is a commercial company within the locality of Moravița. It cultivated 116 ha in 2020, choosing to decrease the risk by cultivating a heterogeneous production. It has one employee for the agricultural activity. The company adds to its income by carrying out activities in the rural area, namely retail trade of food and non-food products [7].

**Entity III** is an entity that carries out its activity within the Deta City. It is a very efficient company, replacing the *nil periods* from agriculture with the activity of support

services for agriculture, namely the trade of parts and accessories for agricultural equipment and repair and maintenance services for agricultural equipment. Thus, the rural economy contributes to the welfare of the citizens from the rural area [8].

**Entity IV** carries out its activity within the Jebel Commune. The labour force involved in the agriculture of this company is comprised only of its administrator and sometimes he calls upon the help of family.

**Entity V** carries out its activity within the Locality Valcani. The labour force involved in

the agricultural activity is comprised of seven workers qualified in agricultural works.

**Entity VI** is an Individual Enterprise. It manages the largest area out of all the entities mentioned above. It works with qualified personnel. It adds to its income by carrying out agricultural works activities within another company that it owns, and in 2020, it started fruit-growing.

It is important to mention the fact that all the entities are led by persons qualified in agriculture, who also have higher education besides their acquired experience.

Table 1. Entity I

I	Sunflower	Wheat	Barley	Maize	Rape	Soy	Others	Total
Area	10.88	35.7	-	14.75	-	3.39	-	64.72
Total production	58.88	151.38	-	126.48	-	9.38	-	346.12
Production/ha	5.41	4.24	-	8.57	-	2.77	-	20.99

Source: Own calculation from the entity's accounting.

Table 2. Entity II

II	Sunflower	Wheat	Barley	Maize	Rape	Soy	Others	Total
Area	30.63	47.58	-	26.21	-	6	-	110.42
Total production	71.5	297.66	-	124.28	-	19	-	512.44
Production/ha	2.33	6.26	-	4.74	-	3.17	-	16.49

Source: Own calculation from the entity's accounting.

Table 3. Entity III

III	Sunflower	Wheat	Barley	Maize	Rape	Soy	Lucerne	Total
Area	38.94	84.58	10.81	8.14	8	6.76	1.67	158.9
Total production	182.18	555.86	161.44	32.56	35.49	13.59	7.5	988.62
Production/ha	4.68	6.57	14.93	4.00	4.44	2.01	4.49	41.12

Source: Own calculation from the entity's accounting.

Table 4. Entity IV

IV	Sunflower	Wheat	Barley	Maize	Rape	Soy	Lucerne	Total
Area	28.08	201.29	23.44	24.44	-	24.24	8.86	310.35
Total production	184.98	1113.51	191.98	85.54	-	32.06	7.2	1615.27
Production/ha	6.59	5.53	8.19	3.50	-	1.32	0.81	25.94

Source: Own calculation from the entity's accounting.

Table 5. Entity V

V	Sunflower	Wheat	Barley	Maize	Rape	Soy	Lucerne	Total
Area	110.4	186.44	40.86	10.02	-	-	38.88	386.6
Total production	321.76	580.34	140.74	80	-	-	166.38	1289.22
Production/ha	2.91	3.11	3.44	7.98	-	-	4.28	21.72

Source: Own calculation from the entity's accounting.

Table 6. Entity VI

VI	Sunflower	Wheat	Barley	Maize	Rape	Soy	Others	Total
Area	-	485.51	-	-	177.7	64.51	49.35	777.07
Production Total/tons	-	2588.94	-	-	863.8	306.88	178	3937.62
Production/ha	-	5.33	-	-	4.86	4.76	3.61	18.56

Source: Own calculation from the entity's accounting

Table 7. The average productions obtained by the entities

Farm	Sunflower	Wheat	Barley	Maize	Rape	Soy	Others
I	5.41	4.24		8.57		2.77	
II	2.33	6.26		4.74		3.17	
III	4.68	6.57	14.93	4.00	4.44	2.01	4.49
IV	6.59	5.53	8.19	3.5		1.32	0.81
V	2.91	3.11	3.44	7.98			4.28
VI		5.33			4.86	4.76	3.61

Source: Own calculation.

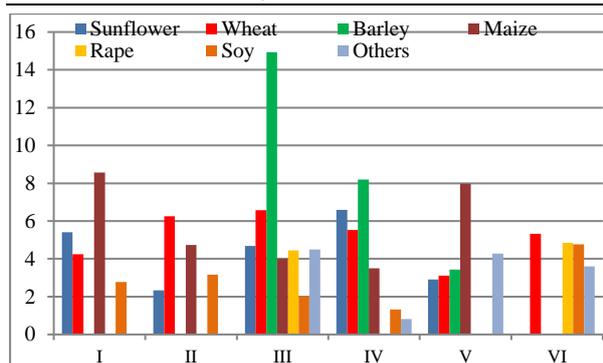


Fig. 1. Farmers ranking by productions in 2019  
 Source: Own determination.

From the observations made, we have found that entities who work large areas have the tendency to cultivate homogeneous productions unlike the ones up to 400 ha who choose a policy of heterogeneous harvests [1]. The reasons for choosing homogeneous harvests are the following:

- having compacted areas, it is easier for them to work the land and therefore the efficiency, productivity and yield/ha are increased;
- the large production quantity obtained per area unit allows the farmers either to negotiate better sales prices, or to store the production obtained until the market conditions are more favourable, with the purpose of obtaining better prices.

The study highlights poor results obtained by farm V that cultivates grain in 2019 on an area of 386.6 ha. The poorer productions are the consequence of the fact that the area in which it is located, Valcani, has a lower soil quality than the rest of the areas pertaining to the other entities included in the analysis [9].

Thus the analysis reveals aspects that need to be explained, considering the fact that with regard to the technology used, the inputs, the soil quality and the external weather factors, entities I-IV, except for entity V, are similar under all these aspects.

The production obtained by these entities that cultivate in the same geographical area with comparable production factors and different yields, raises some questions. To this purpose, we have carried out a mini investigation among the farmers, the mentioned aspects needing clarifications. Among the causes that result in such productivity fluctuations most of them are legal and administrative causes, such as:

- concluding an unofficial convention, the one where the owner of the land is the person who declares the area to APIA, thus he is the one that charges the subsidy, but in reality the land is cultivated by the entity. Hence, they get to have higher productions compared to the ones they declared.

- the farmer does not keep documents due to the lack of estate division, the inheritor not having a contract yet. The situation leads to anomalies, because no one collects the subsidy and the person who exploits the land pays rent from resources *only he knows about*. Again an artificial over-production is created, resulted from economic calculations, and this is also a consequence of reporting on a smaller area than the one declared.

- The exchanges between farmers can only be made from owner to owner and not between lessees. In this case, we have found other type of anomalies. The farmer has to declare the area cultivated by the person with whom he has made the exchange and vice-versa. It results in situations where the area is declared to APIA, he receives subsidy but he does not produce anything of what he declared.

- Another situation we found, which is frequently used, is the one where farmers, by means of the company they manage, sell the harvest obtained on their own lands, property of the natural person and not of the entity they own.

With regard to the exchanges, we have seen pretty elegant solutions in practice, escalation solutions and faithful and correct reporting of the areas that represent the object of the exchange and the production obtained.

Thus, company A has the harvest of company B on its land. In turn, company B has the harvest of company A on its land. Each of the companies declare to APIA their harvests on their lands, in the case, which in reality shall represent the object of a sales-purchase contract. It is an unconventional type of exchange, but it can be seen also as a superficies contract (planting on someone else's land) with the clause that at the end of the contract, the harvest shall be sold integrally. To sell to B and B sells to A, thus, the exchange becomes perfect and in

accordance with what the entities have cultivated in reality. Therefore, the sole purpose of this exchange was the one of cultivating with maximum efficiency on joined, neighbouring lands.

Schematically, the situation of this *exchange* looks like this:

Table 8. The exchanges between farmers

	Land A	Land B
<b>Step 1</b>	A cultivates barley	B cultivates wheat
<b>Step 2</b>	A collects subsidy for barley	B collects subsidy for wheat
<b>Step 3</b>	A sells the entire harvest to B	B sells the entire harvest to A
<b>Step 4</b>	A purchases Wheat and sells Barley harvest	B purchases barley and sells Wheat harvest

Source: Own calculation.

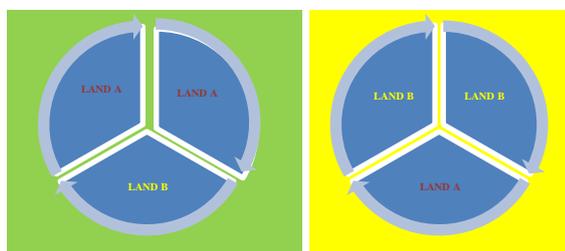


Fig. 2. Wheat harvest A

Fig. 3. Barley harvest B

Source: Own calculation.

We have highlighted some of the anomalies resulted from the absence of lands ownership documents, the non-conformity of the laws and the lack of solutions for certain conventions between the land workers and certain situation that farmers use in the name and for the sole purpose of making the activity more efficient.

Regarding taxes, the current taxation is very good and does not discourage, on the contrary it only brings benefits to those who *register through the company* the entire production obtained, as well as to the State Budget.

Benefits for microenterprises, with a Turnover of up to EUR 1 million.

- the income tax for microenterprises (on sale) is only 1% if the entity has only 1 employee and 3% if the entity has no employees [6];
- increases the entity's profit and turnover, an essential criterion for accessing credit, leasing or other financing means;
- the entire activity is taxed within and outside the entity;

- The VAT by means of reverse taxation is a very good instrument for declaring all income;

- A decreased taxation leads to positive microeconomic and macroeconomic effects;

- For the entities that are organised individually or in association, such as PFA (Authorised Natural Person), Individual Enterprise, Family Enterprise, the tax is set per area and is due in fixed amount, regardless of the income level [3]. Consequently, the income level does not influence the size of the tax.

## CONCLUSIONS

The negative aspects of these methods of working the land without the conclusion of a convention or the non-fulfilment of all the legal requirements in order to become a written document also recognised by APIA, usually lead to the loss of subsidy by not collecting it [2]. We think that the purpose of granting a subsidy is to support the farmer, i.e. the person who exploits the land and not the person who owns it and thus, we consider the reconsideration *ex nunc* of its granting only to those that are actually producing, *ipso facto*, the ones that work the land. The purpose of the convention is to help the farmer, through the support received, to eliminate the upstream advanced costs for the harvest, [5] costs that include fuel and inputs, a considerable part in the final costs of the production/harvest. Therefore, we suggest that the subsidy is granted according to the quantity sold and not according to the cultivated area, thus, the purpose of the subsidy would serve the ones for whom the letter and spirit of the regulation is expressed by the normative act, i.e. the ones that cultivate and produce, who carry out agricultural activities [4].

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