

THE AGRICULTURE SYSTEM FROM THE SÂNPETRU MARE COMMUNE, TIMIS COUNTY

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Abstract

The purpose of this paperwork is to present a common agriculture in Sânpetru Mare with the land, crop structure and companies in the agriculture of the village, soil types and subtypes of the Sânpetru Mare village area, environmental factors that influence these traits, the study of important processes and soils of the investigated area. The objectives of this study were to present the agriculture system and the improvement of the city and its possibilities. As research materials and methods, there were field observations, discussions with farmers and agricultural engineers from the Sânpetru Mare village. Located in the north west of the Timis county, DJ 682, Sânpetru Mare town, village resident with the same name FLA at a distance of 55.5 km from Timisoara and 14.0 km from Sânnicolau Maret nearest town. Sânpetru Mare village covers an area of 19852 hectares, of which 18,836 ha is agricultural land. The results obtained were identified agro-zootechnical system with opportunities for improvement.

Key words: soil, Sânpetru Mare, agriculture, agricultural systems, land fund

In agriculture, the production process is developed - in space and time – in certain climatic conditions which can either maximize or minimize the production results obtained with the same amount of work.

Thus, in agriculture, aside from the social work productivity, we also encounter a natural productivity, determined by the influence of natural factors, of which the climate comes first, thus becoming a significant agricultural production resource. An important fact to remember is that one cannot change the temperature, precipitations, wind regime etc., only influence them in the way one wishes. Usually, in agricultural production, only as much as a quarter to half of the finite production is obtained as a main product, the rest being large secondary products and, usually, hard to transport as well as easily perishable.

That is why this agricultural particularity constitutes the objective motivation to combine agricultural branches, especially vegetal ones with animal ones, but also agricultural ones with non-agricultural ones, which use secondary agricultural products as raw materials.

Sânpetru Mare is situated in the North-Western area of the Timis county, near the border with the Arad county. It is crossed by the river Aranca. Sânpetru Mare is also crossed by the county road DJ692, which links it to Sânnicolau Mare, the closest city, at 14 km and the county

residence, the city of Timisoara, at about 50 km. Its neighbours are: in the West, Periam (circa 4 km), in the South Pesac (7 km on the communal road 29), in the East Saravale (6 km), in the North Igris (8 km on DC29). It has got its own CFR station along the Timisoara - Valcani railroad.

The Sânpetru Mare commune is the basic territorial-administrative unit, which includes a rural population united by interests (*Figure 1*).

The Sânpetru Mare commune is made up by 2 (two) villages: *Sânpetru Mare and Igris*.

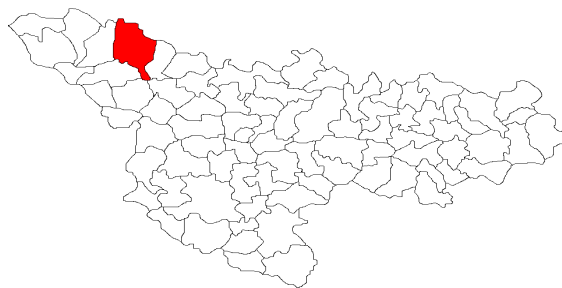


Figure 1. Sânpetru Mare commune in Timiș county

MATERIAL AND METHOD

For the elaboration of this paper we used data obtained from MADR and INSSE, studies and field observations, information from the Igris commune agricultural chamber.

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RESULTS AND DISCUSSIONS

Sânpetru Mare is situated in the North-Western area of the Timis county, near the border with the Arad county.

The commune's agricultural land includes the following uses: tillable 15539 ha (85.9%), grassland 3110 ha (13.8%), hay land 167 ha (0.2%), vineyards 9 ha, orchards 11 ha (0.1%). (Table 1, Figure 2).

Table 1.

Quality (fertility) classes, for the "tillable" usage category

Favourability classes	Ha
1 st class	3128 ha
2 nd class	4635 ha
3 rd class	5218 ha
4 th class	1474 ha
5 th class	1084 ha

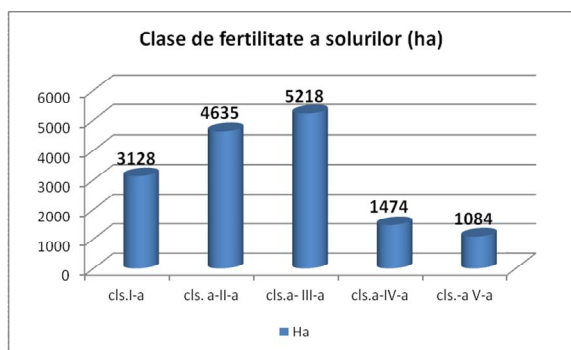


Figure 2. Soil fertility classes (tillable land) from the Sânpetru Mare commune

Regarding the quality class categorization, for the "tillable" usage category, the situation is as follows (Table 2, Figure 3):

- 1st class 3128 ha (20.13%);
- 2nd class 4635 ha (29.83%);
- 3rd class 5218 ha (33.58%);
- 4th class 1474 ha (9.49%);
- 5th class 1084 ha (6.97%).

Table 2.

Agricultural land of the Sânpetru Mare commune

Usage category	Commune total (ha)
Tillable	15,539
Grassland	3,110
Hay land	167
Vineyards	9
Orchards	11
Agricultural total	18,836
Waters and reed	9.30
Unproductive	5.38
Roads	119.75
Constructions	201.86
Non-agricultural total	336.29
General total	19,172

Regarding the land within built-up areas of the Igris commune, the situation is as follows (Table 3, Figure 4):

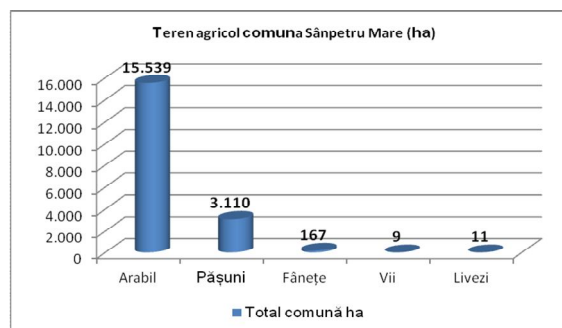


Figure 3. The distribution of the Sânpetru Mare commune agricultural land on usage categories (ha)

Table 3.

Land within built-up areas of the Sânpetru Mare commune (ha)

Usage category	Sânpetru-Mare locality	Igris locality	Commune total
Tillable land	159.04	139.04	304.08
Grassland	3.00	1.00	4.00
Vineyards	1.00	1.00	2.00
Orchards	4.55	5.00	9.55
Agricultural total	170.59	149.04	319.63
Waters and reed	4.30	5.00	9.30
Unproductive	2.00	3.38	5.38
Roads	65.50	54.25	119.75
Constructions	122.13	79.73	201.86
Non-agricultural total	193.93	142.36	336.29
General total	364.52	291.40	655.92

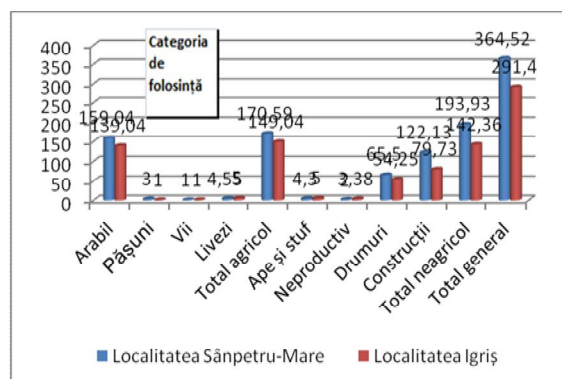


Figure 4. Land within the built-up area of the Sânpetru Mare commune (ha) on usage categories

Regarding the agricultural profile companies activating on the territory of the Sânpetru Mare commune, the crop situation, as well as that of the land surface they occupy, is as follows (Table 4, 5, 6. Figure 5, 6, 7).

Table 4.
Crop and crop occupied land situation
(legal persons) 2012

Crop	Surface - ha
Wheat	1900
Corn	1100
Sunflower	365
Barley	344
Oat	25
Triticale	85
Fodder	200
Total	4019

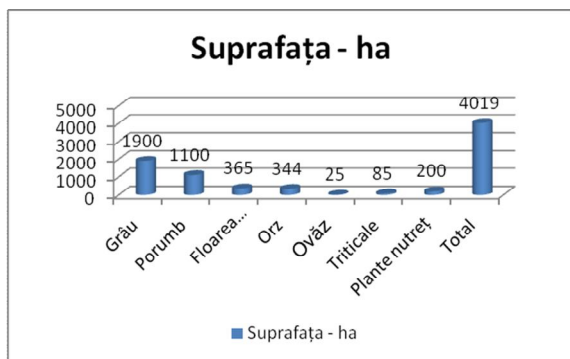


Figure 5. Crop and crop occupied land situation (legal persons) 2012

Tabelul 6.
Crop and crop occupied land situation
(legal persons) 2014

Crop	Surface – ha
Wheat	1780
Corn	1310
Sunflower	437
Barley	200
Oat	80
Triticale	190
Fodder	230
Total	4227

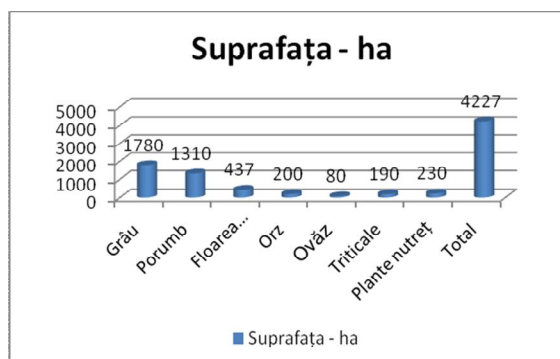


Figure 7. Crop and crop occupied land situation (legal persons) 2014

Table 5.
Crop and crop occupied land situation (legal persons) 2013

Crop	Surface – ha
Wheat	1804
Corn	1280
Sunflower	390
Barley	240
Oat	--
Triticale	268
Fodder	245
Total	4227

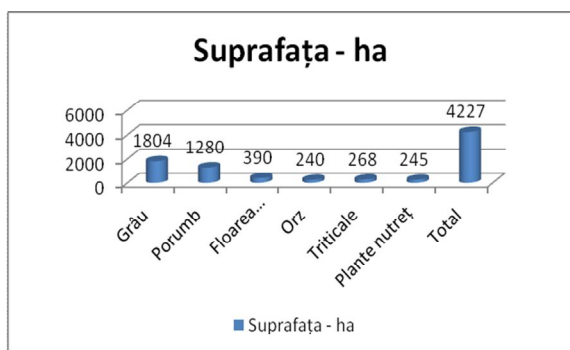


Figure 6. Crop and crop occupied land situation (legal persons) 2013

Table 7.
Harvested surface and obtained production - 2012 individual exploitations

Ct. no	Crop name	Individual agric. expl.	
		Harvested surface (ha)	Obtained production (t)
1	Wheat	1713	6100
2	Corn grains	1183	2860
3	Sunflower	298	506
4	Barley	268	520
5	Triticale	20	30
6	Fodder	390	6560

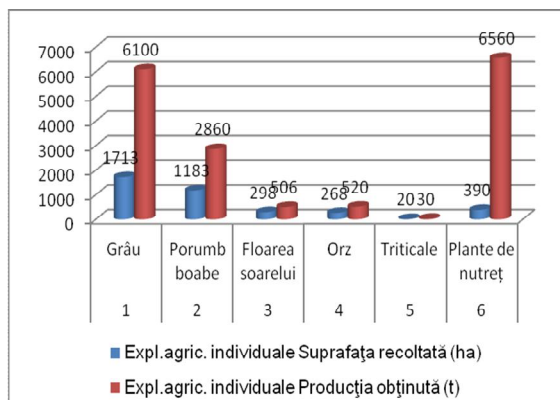


Figure 8. Harvested surface and obtained production - 2012 individual exploitations

Regarding the individual exploitations, the situation is reflected in table 7, 8, 9 and figure 8, 9, 10.

Table 8.

Harvested surface and obtained production, fertilizer, amendment, and pesticide application, planting and vineyard and tree clearings - 2013 (AGR 2B)

Ct. no	Crop name	Individual agric. expl.	
		Harvested surface (ha)	Obtained production (t)
1	Wheat	1976	9969
2	Corn grains	1100	5420
3	Sunflower	390	1110
4	Barley	180	756
5	Triticale	25	62
6	Fodder	300	3972

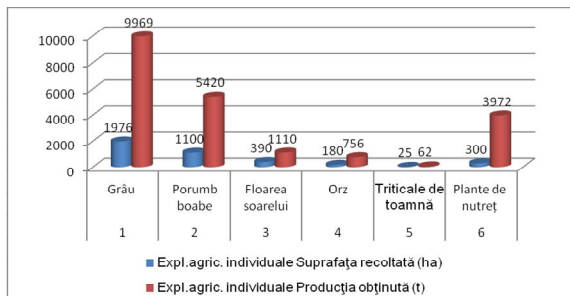


Figure 9. Harvested surface and obtained production - 2013 individual exploitations

Table 9.

Harvested surface and obtained production, fertilizer, amendment, and pesticide application, planting and vineyard and tree clearings - 2014 (AGR 2B)

Ct. no	Crop name	Individual agric. expl.	
		Harvested surface (ha)	Obtained production (t)
1	Wheat	1810	8187
2	Corn grains	1035	7220
3	Sunflower	565	1780
4	Barley	210	840
5	Triticale	30	120
6	Fodder	285	

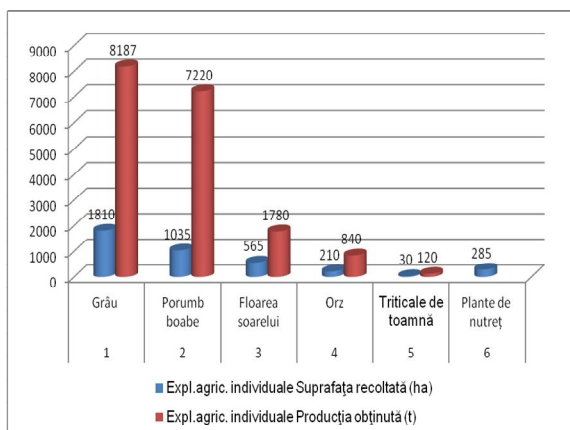


Figure 10. Harvested surface and obtained production - 2014 individual exploitations

CONCLUSIONS

The first and foremost particularity of agriculture is that the soil is the main element of the agricultural capital, simultaneously functioning as work object, as well as work means. Part of the agricultural production is achieved by agricultural profile companies, part of it is obtained in individual agricultural exploitations.

Governmental agricultural aiding programmes positively influence the Sânpetru Mare locality economy.

In the Sânpetru Mare commune, there are great possibilities to use agricultural land, as one may notice in the tables in chapter IV, however, due to various limitative soil and especially economic factors, these possibilities are limited. The population active in this field has limited knowledge, precarious agricultural equipment and does not apply the totality of measures necessary to benefit from the entire land production potential.

The soil is an essential resource, without which the agriculturalist cannot exercise his profession. Soil as an economic analysis object, is a private immobile goods, non-reproducible, heterogeneous, indivisible, with multiple non-separable characteristics (form, surface, position), simultaneously exercising several functions (production, consume, value - refuge, speculation).

Another agriculture particularity consists in the disparity between working time and production time. Full accordance between working and production time occurs in industry, whereas in agriculture (especially plant crops) the production time does not correspond with working time, the former exceeding the latter. The agricultural system from the Sânpetru Mare locality area is an agricultural one, with weak agro-zootechnical influences, due to the reduced animal number.

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