

## THE AGRICULTURAL SYSTEM IN BELINT, TIMIS COUNTY

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### ABSTRACT

The significant potential of Romanian agriculture, as well as the rise in prices for agricultural products worldwide could maintain the high interest displayed by foreign investors in this sector. This is one of the conclusions drawn by economic analysts regarding the field of agriculture. They claim that Romania presents the highest level of use of unemployed familial workers in agriculture among all EU countries. Another point they make is that the low investment rates have increased the vulnerability of Romanian agriculture to meteorological conditions and induced a volatile behaviour into this sector.

The highly fragmented structure of the agricultural area represents an obstacle for attracting new investments, and at the same time it affects work productivity. The rural area is characterized by the existence of a considerable number of people who are economically and socially vulnerable, and who face difficulties in complying with the new set of complex EU requirements in the field of agriculture. The ever-rising prices represent an opportunity for the countries which benefit from strong agricultural sectors. România enjoys a privileged position from the point of view of the agricultural resources.

The arable land represents 39.5% of the total surface: there are only five other countries in the world with a more comfortable position from this point of view. The domestic agricultural sector is frequently seen as the main beneficiary of the fact that Romania has become a part of the European Union. The opportunities arise from the important European funds that can be accessed in the frame of the Common Agricultural Policy - around 7.5 billion euro in the period between 2007 and 2013.

**Keywords:** agriculture, potential, arable land, animal husbandry, agricultural area

### INTRODUCTION

Being situated to the east from the relative centre of Timis County, on the national road DN 6, the settlement named Belint, which is the capital of the commune that bears the same name, is located at a 45.5 km distance from Timisoara. The closest town is Lugoj, 14.5 km away.

The municipality of Belint covers an area of 6320 ha, of which 5670 ha is arable land. The administrative composition of the municipality engulfs villages Belinț, Babșa, Chizătău and Gruni.

There are three elements making up the relief in the area. One third of the relief belonging to these settlements is made up of hills. Part of Lipova Hills, 150-180 m high, they are located north of the Bega River and East-Southeast from Gruni, with a general inclination from North-North-east towards South-South-west. Another part of the relief represented in this area is the plain, part of Timis Plain, present to the south of the area belonging to Belint, in the shape of alluvial-proluvial dam situated between Lipova Hills and the right bank of the Timis river. The altitudes range from 105m to 110 m near Chizatau village and 111m to 140m in the Gruni-Babsa area. The third element is represented by the valleys, namely the valleys of rivers Timis and Bega. The main water courses are the Timis river and the Bega river, while rivulets Miniș, Hisiaș, Glavița, as well as the Timis-Bega canal complete the hydrographic network. It is worth noting that the Bega, the Miniș and the Hisiaș also collect the waters from the gullies and ravines in the hill area, the common trait of gullies and ravines being the great flow fluctuations, with maximum flows during springtime and at the beginning of summer, when the

precipitations are higher. The current aspect of the hydrographic system is the result of large improvement works started in 1728. Two of the most important results to this date are the canalization of the Bega and the damming of the Timis riverbed.

## MATERIAL AND METHOD

The weight of agriculture in Romanian economy has gone down after 1990. Nevertheless, the contribution of agriculture to the gross domestic product remains substantial (12.8% in 2001).

After the 1990s, agricultural yield has manifested very diverse specific dynamics, both in what the sector is concerned (vegetal and animal), and from a regional point of view, in relation to the diversity of the agri-climatic conditions and to the degree of use of the production factors. The vegetal production has grown at a higher pace, because it requires smaller financial efforts, which is a very important factor if we take into consideration the lack of a capital market in our country.

The number of animals raised in the area has decreased considerably in the last decade, which, under the current situation, can jeopardize the genetic fund for animal husbandry.

For the purpose of this paper, we used data obtained by direct observation, as well as information from The Statistic Annuary of Romania, Ministry of Agriculture and Rural Development, The National Institute of Statistics and Economic Studies and Belint town hall.

## RESULTS

### The situation of the land fund

Table 1 presents the situation of the land fund of Belint commune in the years 2009 and 2010. As the table shows, the arable land surface increased from 4388 ha in 2009 to 4496 ha in 2010. The surplus of arable land resulted from the transformation of a part of the forest for agricultural purposes. In the same period, the surface covered with meadows and orchards stayed the same.

**Table 1. The situation of the land fund of Belint commune in 2009**

Use	2009	2010
	Surface (ha)	Surface (ha)
Arable	4388	4496
Meadows	1104	1004
Hay lands	45	45
Vineyards	--	--
Orchards	44	44
<b>Agricultural total:</b>	<b>5581</b>	<b>5689</b>
Forests, bushes	59	59
Waters, ponds	142	142
Non-productive	6	6
Roads, railroads	185	185
Buildings	217	217
<b>Non-agricultural:</b>	<b>609</b>	<b>609</b>

<b>General total:</b>	<b>6320</b>	<b>6320</b>
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As for the classification into quality classes (fertility), for the "arable" category of use, things stand as follows:

- ✓ second class 1482 ha (26.1%)
- ✓ third class 2224 ha (39.3%)
- ✓ fourth class 1270 ha (22.4%)
- ✓ fifth class 694 ha (12.2%).

### **Structure of crops**

As one can notice in Table 2, the structure of crops is very varied, covering a large range of crops. Thus, 2458 ha were cultivated with cereals in 2009. The main crop was maize: it was grown on 1600 ha. In 2010, the same crop was the most used one, covering 1710 ha, 110 ha more than in the previous year.

The second place was taken by wheat, with 510 ha in 2009, while in 2010 the lands sown with it decreased by 280 ha. Barley covers a similar surface in the two years of reference. In what the legumes are concerned, in the two years taken into consideration people grew peas, beans and soybeans; of these, beans covered the largest surface: 10 ha.

An important area (70 hectares) is covered by technical crops, more precisely sunflower. Potatoes are extremely important in the agriculture of Belint: 290 ha are destined for autumn consumption and 120 ha for early consumption.

Vegetables play an important part, since they are the main source of income for the inhabitants in the area: 395 hectares are destined for growing vegetables, either in open air or in greenhouses.

### **Animal husbandry sector**

The inhabitants of Belint raise a large variety of animal species, hence the animal husbandry sector is well represented in the area.

Here is the situation of cattle:

- ✓ Dairy cows: 182 head;
- ✓ Heifers 59 head;
- ✓ Young bulls 41 head.

The total of bovines is 282 head, with a tendency towards increasing the number in the following years, due to the large areas cultivated with fodder plants and meadows.

The current situation of swine in Belint area is as follows:

- ✓ Calving sows 80 head;
- ✓ Young sows for calving 20 head;
- ✓ Boars 8 head;
- ✓ Fattened pigs over 50 kg 936 head;
- ✓ Fattened pigs under 50 kg 842 head.
- ✓ Total swine 1886 head.

The data presented above show good livestock potential. The problem regarding swine in the area is not raising them, but slaughtering them: this should be performed in certain, properly equipped enclosed spaces and according to certain rules, in order to comply with the EU rules.

**Table 2. The structure of crops in 2009 and 2010 (data provided by the Chamber for Agriculture of Belint Town Hall)**

<b>Structure of crops(ha)</b>	<b>2009</b>	<b>2010</b>	<b>Difference</b>
<b>Cereals, of which:</b>			
Wheat	510	230	- 280
Rye	20	0	- 20
Triticale	--	5	+ 5
Barley	40	20	- 20
Spring two-row barley	--	3	+ 3
Oats	280	280	--
Maize	1600	1710	+ 110
<b>Total cereals</b>	<b>2458</b>	<b>2248</b>	<b>- 210</b>
<b>Legumes, of which:</b>			
Peas	5	5	--
Beans	10	10	--
Soybeans	8	--	- 8
<b>Total legumes</b>	<b>23</b>	<b>15</b>	<b>- 8</b>
<b>Technical crops, of which:</b>			
Sunflower	70	70	--
Early and semi-early potatoes	120	120	--
Autumn potatoes	290	290	--
<b>Total technical crops</b>	<b>480</b>	<b>480</b>	<b>--</b>
<b>Vegetables on the field and in greenhouses Of which:</b>			
Autumn tomatoes	30	30	--
Onions	57	57	--
Garlic	25	25	--
Early and autumn cabbage	43	43	--
Peppers	50	50	--
Cucumbers	50	50	--
Root crops	60	60	--
Pods of pea	5	5	--
Pods of beans	5	5	--
Aubergines	30	30	--
Cauliflower	30	30	--
Other vegetables	50	50	--
<b>Total vegetables (field and greenhouses)</b>	<b>395</b>	<b>395</b>	<b>--</b>
Watermelons and cantaloupes	4	4	--
<b>Total fodder plants</b>	<b>365</b>	<b>365</b>	<b>--</b>
<b>Non-sown fields</b>	<b>364</b>	<b>562</b>	<b>+ 198</b>
<b>Crop fields</b>	<b>300</b>	<b>320</b>	<b>+ 20</b>

The numbers of sheep are the following:

- ✓ Ewes 5600 head;
- ✓ Rams for breeding 105;
- ✓ Young sheep 670 head;

Raising sheep here proves the fact that the villagers know how to effectively use the hills in Belint, since that area cannot be used for crops.

The situation of the poultry is as follows:

- ✓ Chickens - 24.060;
- ✓ Turkeys - 420;
- ✓ Geese - 320;
- ✓ Ducks - 260;
- ✓ Broilers - 4.200;
- ✓ Other species - 140.

The large number of poultry in the commune is raised privately and is enough to ensure the food supplies for villagers. Other animals raised in the area:

- ✓ Traction horses 85 head;
- ✓ Calving mares 66 head;
- ✓ Rabbits 430 head;
- ✓ Bees 160 hives.

**Table 3 Animal husbandry sector (data provided by the Chamber of agriculture in Belint Town Hall)**

<b>Animals</b>	<b>No.</b>
<b>Cattle Of which:</b>	
Dairy cows	182
Heifers	59
Young bulls	41
<b>Total bovines</b>	<b>282</b>
<b>Total Swine</b>	<b>1886</b>
<b>Sheep Of which:</b>	
Ewes	5600
Rams	105
Young sheep	670
<b>Total sheep</b>	<b>6375</b>
<b>Goats of which:</b>	
Goats	4
Kids	10
<b>Total goats</b>	<b>14</b>
<b>Total poultry</b>	<b>28.745</b>
<b>Horses Of which:</b>	
Mares	66
Traction horses	85
<b>Total horses</b>	<b>134</b>
<b>Rabbits</b>	<b>430</b>
<b>Beehives</b>	<b>160</b>

### **Equipment and machineries**

As shown in Table 4, the equipments and machineries in Belint commune cover all requirements for obtaining good crops (both from a quantitative and a qualitative point of view). The large number of machines of all sorts allows people to make all works at the optimal moment, thus yielding good crops.

Thus, the following machineries can be found in Belint:

- ✓ Tractors from 45 to 65 HP - 140 pieces;
- ✓ Tractors over 65 HP - 3 pieces;
- ✓ Ploughs - 92;
- ✓ Sowers - 49 pieces;
- ✓ Harrows - 197 pieces,
- ✓ Row crops - 80 pieces;
- ✓ Seedling planters - 4 pieces;
- ✓ Herbicide machines - 17 pieces;
- ✓ Self-propelled combines and hoes for cereals - 20 pieces;
- ✓ Trailers 68 pieces;

## CONCLUSIONS

Located to the east from the relative centre of Timis County, on the national road DN 6, the settlement named Belint is situated 45.5 km away from Timisoara. The closest town is Lugoj, which is to be found 14.5 km away. The commune of Belint covers an area of 6320 ha, of which 5670 ha is arable land. The administrative composition of the municipality engulfs villages Belinț, Babșa, Chizătău and Gruni.

The people in the commune make good use of the soil resources, obtaining good crops, both from a qualitative and a quantitative point of view.

The great majority of the active population works in agriculture, especially in growing vegetables, thus obtaining decent living but at high cost, reflected in their long work hours. For the past two years, the situation has been a little more difficult than in the previous years, since the economic crisis that the world faces has affected the inhabitants of Belint, too. Thus, they have not sold as much as in the years before, and also they have had to lower the prices in order to be able to sell their products.

Still, the determination of these villagers, the agricultural potential that their lands have and the support given by the ministry of agriculture are the premises of good development of the commune for the good of the people living in it.

## REFERENCES

- IANOȘ G., 1997 - *Condițiile naturale din județul Timiș*, A XVII-A Conferință a SNRSS, Ghidul excursiilor, Timișoara;
- IANOȘ G., PUȘCĂ I., GOIAN M., 1997 - *Solurile Banatului II – Condiții naturale și fertilitate*, Ed. Mirton, Timișoara;
- MÂNDRUȚ O., 1993 - *Geografia României*, Ed. Coresi, București;
- MIHĂILESCU V., 1966 - *Dealurile și câmpiile României*, Ed. Științifică, București;
- BORCEAN L, PÎRȘAN P., BORCEAN A., - *Fitotehnie, Partea I Cereale și leguminoasele cultivate pentru boabe*. Curs.USAMVB Timișoara
- xxx. Data supplied by Belinț Town Hall;
- xxx. Data supplied by Timișoara meteorological station;
- xxx. Anuarul statistic al României;
- <http://ro.wikipedia.org>.
- <http://www.apmtm.ro/timis.htm>;
- [http://www.timisoreni.ro/info/date\\_geografice/Timisoara\\_Clima.html](http://www.timisoreni.ro/info/date_geografice/Timisoara_Clima.html);
- <http://www.madr.ro/pages/raport/agricultura-romaniei-feb2010.pdf>