

## **AGRICULTURAL PRODUCTION IN ROMANIA. CONSIDERATIONS FROM THE PERSPECTIVE OF A POSSIBLE FOOD CRISIS.**

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### **Abstract:**

*An ancestral occupation, with a fundamental role in ensuring the survival and the development of humanity, agriculture is today the subject of extensive transformations. The challenges are various, the pressure amplifying especially in the context of more and more frequent warnings issued regarding the eminent onset of a serious food crisis. From the point of view of the agricultural potential, Romania is one of the extremely well represented countries. However, there are many causes that underlie an insufficient unlock of this potential. The purpose of our paper is to analyse the characteristics of the agricultural production in Romania, respectively to identify its specific, but also the development perspectives (expansion and diversification of production) in the new setting.*

**Keywords:** *agriculture, vegetal production, animal production, food crisis*

**JEL classification:** *Q15*

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### **1. Introduction**

At the beginning of the 19th century, one of Romania's fundamental socio-economic problems took shape: the "peasant issue". Its impact was a major one, particularly since it targeted the most important economic branch: agriculture, as well as the most consistent component of the population: the rural population. The complexity of the problem derives from its double dimensioning, over the agrarian aspect (related to the inequitable distribution of the land property) overlapping the agricultural aspect (regarding the concrete organization/functioning of the agricultural exploitation). The "peasant issue" operated mainly as a brake factor, paradoxically, a country with huge resources, specialized in that branch (see also the theory "Romania:

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an eminently agricultural country") recording relatively modest results in terms of production.

Despite the measures taken to solve the situation and to provide efficiency (the agrarian reforms of 1864 and 1921), the "peasant issue" remained open, which determines that even today we witness its manifestations, including in terms of agricultural production. The present Romanian agriculture represents an outcome of all previous evolutions, the "peasant issue" included, the analyse of its current state providing us essential information, a deeper understanding, and the opportunity of identifying and assuming new ways of development.

## **2. Crop production. General characteristics. Interpretations.**

The Statistical Yearbook of Romania (2019) indicates a utilised agricultural area of 12502535 ha, encompassed in 3422026 holdings. The majority of the holdings: 2489459 farms/73%, embodies both utilised agricultural area and livestock. Another 852726 farms/2% own only utilised agricultural area, the remaining agricultural units: 79818/2% owning just livestock. The average area of an agricultural holding is 3.65 ha, one of the smallest averages in the European Union.

As use categories, prevail the agricultural exploitations representing arable lands: 2375657 (71%), followed by those destined for family gardens: 1988450 (59%), pastures and natural meadows: 1240334 (37%), respectively permanent crops: 974308 (29%).

According to the criterion of the legal status, the main proportion is registered in the case of holdings without legal personality: 3395925 (99.23%), agricultural holdings with legal personality being extremely limited numerically: 26101 (0.76%). By far, the highest representation belongs to the individual agricultural holdings: 3379883 (98.76%), at the opposite pole being placed the cooperative units: 50. If we take into account the reduced number of agricultural companies/associations: 60, it results, once more, that in Romania still exists an increased reluctance regarding the association in agriculture, despite the major advantages of cooperation.

The statistical source mentioned above reveals the predominant cereal character of the Romanian agriculture, most of the farms owning arable land being specialized in corn crops: 1635363 (49%) and wheat crops: 610293 (18%). The following are the farms destined for the industrial crops, especially the sunflower crops: 139102 (4%) and the rapeseed crops: 12700 (0.3%),

seconded by the holdings intended for dried pulses (see bean farms: 1.6%) and root crops (of which potato farms are representing 18%).

**Table 1. Agricultural holdings by main crops in arable land and the cultivated area.**

<b>Main crops in arable land</b>	<b>Agricultural holdings (number)</b>	<b>Cultivated area (thousand hectares)</b>
<b>Cereals for grains</b>		5487,0
Wheat	610293	2137,7
Rye	15699	10,5
Barley/Two row barley	119013	481,6
Maize	1635363	2581,0
<b>Dried pulses</b>		59,3
Peas	19944	43,2
Dried beans	55877	14,9
<b>Industrial crops</b>		1638,4
Sunflower	139102	1039,8
Rapeseed	12700	456,0
Soybeans	12132	127,3
<b>Root crops</b>		220,4
Potatoes	605688	182,2
Sugar beet	9756	24,9

(Source: The Statistical Yearbook of Romania. 2019)

Within the cultivated area, out of the total of 8409.2 thousand ha, most of it belongs to cereals for grains (5487.0 thousand ha: 65%), followed by the lands cultivated with industrial crops (1638.4 thousand ha: 19.5%), fodder (864.2 thousand ha: 10%), vegetables (228.4 thousand ha: 2.7%) and root crops (220.4 thousand ha: 2.6%). In the first place as area are placed the corn crops (2580.7 thousand ha: 31%) followed by the wheat (2137.7 thousand ha: 25%) and the sunflower (1039.8 thousand ha: 12%).

In the category of areas cultivated with vegetables, the crops of white cabbage rank first (46.2 thousand ha: 20%), followed by the surfaces cultivated with tomatoes (41.0 thousand ha: 18%) and dried onions (30.3 thousand ha: 13%). Extremely interesting is the representation of the main crops within the different size categories of agricultural holdings. We notice that in what concerns the cereals for grains, most agricultural units destined to the wheat crops are those comprised between 2-5 ha. (246539/610293). The

same situation is valid for rye (7152/15699), barley and two row barley crops (52526/119013) crops, but also for the dried pulses (peas: 5122/19944; dried beans: 13137/55877). Also, regarding the industrial crops, the most numerically representative are the agricultural exploitations between 2-5 ha: sunflower (57477/139102); soybeans (4275/12132). The same applies for the potato crops (171722/605688) and sugar beet crops (3317/9756). The only exceptions refer to the crops of corn and of rapeseed, in their case prevailing the exploitations between 5-10 ha (corn: 126849/1635363; rapeseed: 2296/12700).

**Table 2. Crop production, for main crops.**

<b>Main crops</b>	<b>Production (thousand tons)</b>
<b>Cereals for grains</b>	21764,8
Wheat	8431,1
Rye	25,9
Barley/Two row barley	1817,3
Maize	10746,4
Rice	43,6
Oats	381,4
<b>Dried pulses</b>	99,3
Peas	78,8
Dried beans	19,1
<b>Industrial crops</b>	-
Sunflower	2032,3
Rapeseed	1292,8
Soya beans	263,4
<b>Root crops</b>	-
Potatoes	2689,7
Sugar beet	1012,2
<b>Vegetables</b>	3358,4
Tomatoes	627,2
Onion	325,1
White cabbage	992,4
<b>Green fodder</b>	12070,5

(Source: The Statistical Yearbook of Romania. 2019)

The most significant production is that of cereals (21764.8 thousand tons, of which corn: 10746.4 thousand tons and wheat: 8431.1 thousand tons),

succeeded by the production of green fodder (12070.5 thousand tons), root crops, industrial crops and vegetables. Regarding the average production index per hectare, the highest indices belong to the crops of: sugar beet (40611 kg/ha), fodder roots (25276 kg/ha), white cabbage (21458 kg/ha), melons (19347 kg/ha), tomatoes (15297 kg/ha) and potatoes (14551 kg/ha). Low average yields characterize wheat crops (3944 kg/ha), rye (2479 kg/ha), barley/two row barley (3773 kg/ha) and corn (2239 kg/ha) but also sunflower crops (1955 kg/ha), rapeseed (2835 kg/ha) and soybeans (2070 kg/ha). We notice here a strong contradiction. Although superior both numerically and in terms of utilized area, agricultural holdings specialized in cereals are proving to be extremely deficient in terms of generated production.

We cannot ignore some observations regarding the vineyards and the fruit production. Thus, the 178.2 thousand hectares of vines produce approx. 737 thousand tons of grapes, which means an average production of 4136 kg/ha. Related to the production of fruits, this amounts to 1241.6 thousand tons, on the first places being ranked the production of plums: 513.0 thousand tons and apples: 467.3 thousand tons, at a considerable distance following the production of cherries/sour cherries: 73.8 thousand tons and of pears: 52.8 thousand tons.

### **3. Animal production. General considerations. Interpretations.**

Romania's crop production is complete by the animal production. According to the numerical aspect, in the first place are positioned the poultry farms, followed by the pig farms, cattle, horse and sheep farms. As in the case of farms intended for agricultural crops and of farms with livestock, the category with the widest representation is that of sizes between 2-5 ha: cattle farms (193775/541137), pig farms (315453/1283584), sheep farms (67423/208363), goats (35398/129916), horses (85146/290854), domestic rabbits (11471/44799), poultry (497322/2445555) and bee families (6832/29398).

**Table 3. Agricultural holdings with livestock and livestock by species.**

<b>Livestock by species</b>	<b>Agricultural holdings (number)</b>
Cattle	541137
Pigs	1283584
Sheep	208363
Goats	129916

<b>Livestock by species</b>	<b>Agricultural holdings (number)</b>
Horses	290854
Rabbits	44799
Poultry	2445555
Bees	29398

(Source: The Statistical Yearbook of Romania. 2019)

As livestock, the most numerous are the poultry (75690 thousand heads), sheep (9875 thousand heads/average of 85.5 heads per 100 ha), pigs (4708 thousand heads/average of 53.7 heads per 100 ha) and cattle (2050 thousand heads/average of 15.4 heads per 100 ha).

Animal production is estimated at 1465 thousand tons live weight, the most significant being the production of pork: 588 thousand tons and of poultry: 555 thousand tons, milk production amounting to 48,133 thousand hl, wool production at 22277 tons, while the production of eggs reaches 6182 million pieces, and that of honey: 21202 tons.

Regarding the production of the main agricultural products, per capita, the statistics register 1104.5 kg of cereals, 103.1 kg of sunflower, 51.4 kg of sugar beet, 136.5 kg of potatoes, 170.4 kg of vegetables, 63, 0 kg of fruit, 74.3 kg of meat, 244.3 litres of milk, 1.1 kg of wool and 314 eggs.

Within the agricultural branch, the majority share belongs to the crop production (70.9%), the animal production representing only 27.7% of the total production from this branch, the component of the agricultural services being almost non-existent (only 1.4%).

Table 4. Agricultural branch production.

<b>Production categories</b>	<b>Current prices</b> (thousand lei)	<b>Structure</b> (%)	<b>Indices production agricultural branch</b> (precedent year=100)
<b>Crop production</b>	61216194	70.9	111,5
<b>Animal production</b>	23903451	27,7	97,4
<b>Agricultural services</b>	1229646	1,4	116,9
<b>Total</b>	86349291	100,0	107,2

(Source: The Statistical Yearbook of Romania. 2019)

As regards the Romanian trade with agricultural products, the exports represent 10.5 % from the total trade, while the imports are representing 9.7 %. In terms of value, the exports are estimated at 7196.3 million euros, the imports being valued at 8.378.9 million euros. Agriculture contributes to a considerable deficit of the trade balance (1.182.6 million euros).

Most of the exports are orientated towards the non-UE countries (64 %), only 36 % of the exports being addressed to the European Union markets. In terms of imports, only 14 % of the imported agricultural products are provided by the European Union, the most part of the imports coming from the non-UE states.

#### **4. Conclusions**

The presented data support the idea of a specialization of the Romanian agriculture, cereals and industrial crops (more precisely the oil crops) being the main elements of the agricultural production. A number of factors have contributed to this evolution, including: favourable climatic conditions, an increased demand, the high prices offered by the international markets, but also the system of subsidies applied by the Common Agricultural Policy.

In this context, there was a sharp imbalance in terms of the agricultural production structure, between the crop and the animal production the gap becoming more and more pronounced.

With an agriculture oriented towards export productions, Romania has difficulties in satisfying the growing consumption of the population, a fact translated into the intensification of imports and of the degree of dependence on international markets.

We are thus discussing about a major vulnerability of the Romanian agriculture and economy, respectively about the urgent character of the elaboration of a strategy that would allow Romania to ensure the food security of its population. This is more problematic as the spectre of a possible new food crisis is already increasingly threatening.

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