

ANALYSIS OF THE EVOLUTION OF CULTIVATED AREAS AND THE PRODUCTIONS OBTAINED FOR THE MAIN CROPS IN THE LAST DECADE IN "HAȚEG COUNTRY"

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***Abstract.** The paper analyzes the evolution of main crops (wheat, rye, barley, oats, maize, potatoes and vegetables) from "Hațeg Country", Hunedoara County. The researches carried out, by data taken from the field and by the ones existing at the Institute of Statistics, respectively the technical-operative reports on the situation of crops from DAJ Hunedoara and from the town halls of communes, disclose that in the studied period, 2010-2019, the main cereals cultivated are wheat and maize. The area cultivated with wheat varies from year to year, the environmental conditions in the area, mostly hill and mountain, being not favorable to wheat cultivation, therefore, the yields obtained are below the national average. The area cultivated with potatoes (traditional in this area) and vegetables, vary from one locality to another during the analyzed period, the total area cultivated at the level of "Hațeg Country" remaining approximately constant.*

Key words: cultivated areas evolution, crops, Hațeg Country

INTRODUCTION

"Hațeg Country" is a land in the southwestern part of Transylvania, in Hunedoara County. The region includes, or overlaps the depression with the same name, being bordered by mountains, Retezat to the south, Șureanu to the east and northeast, Țarcu to the west and Poiana Ruscă to the north. Among them, Țara Hațegului practically corresponds to the upper basin of the river Strei, having a maximum length (east-west) of about 50 km and a maximum width (north-south) of about 30 km, with a total area of almost 1300 km². This geo-morphological unit consists of a mountainous relief in the northern part and hilly in the southern part. The climate in the area is temperate continental, with differences marked by the layering of landforms, the arrangement of mountain ranges and valley corridors, being wetter and cooler in the mountains and warmer and less humid in the depression. The average annual temperature varies between -2 and -10 degrees C in winter, and between 10 and 20 degrees C in summer, with precipitation between 700 - 800 mm annually in the depression area and 1,300 - 1,400 mm annually in the mountain area [3, 4].

In almost all localities in the area are grown cereals (wheat, rye, barley, oats and corn), as well as potatoes and other vegetables [1]. Among cereals, wheat and corn have the largest cultivated areas, and among vegetables, potatoes [2]. The cultivated areas vary from one locality to another, but in total there have not been big differences over the years.

MATERIALS AND METHODS

The primary data from the paper were taken from the Directorate for Agriculture and Rural Development of Hunedoara and from the agricultural departments of the town halls of each locality from the "Hațeg Country". This data presents the situation of the cultivated areas (ha) and yields (kg / ha) with wheat and rye, barley, oat, maize, potatoes and vegetables, obtained at 31.12 of each of the studied year. The data taken from the town

halls of the communes were confronted with the data from national and international statistics. Based on these data, further aggregations were made, as well as determinations of the share of a certain category of crops, respectively the differences between the years studied.

RESEARCH RESULTS

Analyzing the evolution of arable land and cultivated arable land, it is found that approximately 4100 ha (24.5%) were not cultivated in 2010. In 2019, the arable uncultivated area decreased to approximately 3100 ha (18.6%) [5-6].

Table 1.
Evolution of cultivated areas (ha) and yields (kg / ha) obtained in “Hațeg Country”

| Crop | 2010 | | 2015 | | 2019 | | Average 2010-2019 | |
|----------------------|------|--------------------|------|--------------------|------|--------------------|-------------------|------------|
| | Area | Average production | Area | Average production | Area | Average production | Area | Production |
| Wheat and rye | 2301 | 2874 | 2778 | 2785 | 2240 | 3331 | 2439 | 2997 |
| Barley | 543 | 2073 | 540 | 2144 | 585 | 2433 | 572 | 2232 |
| Oat | 505 | 1545 | 453 | 1738 | 392 | 1890 | 508 | 1674 |
| Maize | 3858 | 3100 | 4933 | 2309 | 4787 | 3784 | 4526 | 3064 |
| Potatoes | 1896 | 12042 | 1892 | 10213 | 1892 | 11379 | 1894 | 10553 |
| Vegetables | 858 | 11626 | 852 | 9396 | 929 | 10637 | 880 | 11211 |

Source: data processed according to AGR2A and 2B files from DAJ Hunedoara and from the town halls [7-18]

Wheat and corn are the main cereals grown in “Hațeg Country”. The area cultivated with wheat varies from year to year, the lowest value being registered in 2015 in Sarmizegetusa commune (32 ha), and the highest of all values being 836 ha in 2015 in Totești commune. Areas cultivated with rye have a low share compared to those cultivated with wheat, during the analyzed period they increased from 98 ha in 2010 to 173 ha in 2019. The environmental conditions in the area, mostly hill and mountain, are not favorable to wheat cultivation, therefore, the yields obtained are below the national average, fluctuating between 2874 kg / ha in 2010 and 3331 kg / ha in 2019.

Table 2.
Evolution of cultivated areas (ha) and yields (kg / ha) obtained from wheat and rye crops in “Hațeg Country”

| Locality | 2010 | | 2015 | | 2019 | | Average | |
|----------------------|-------------|--------------------|-------------|--------------------|-------------|--------------------|-------------|-------------|
| | Area | Average production | Area | Average production | Area | Average production | Area | Production |
| Hațeg | 373 | 3000 | 170 | 2900 | 166 | 3000 | 236 | 2967 |
| Baru | 100 | 3000 | 100 | 4000 | 105 | 5500 | 102 | 4167 |
| Bretea Română | 370 | 2800 | 450 | 3000 | 430 | 2500 | 417 | 2767 |
| Densus | 127 | 3600 | 110 | 3000 | 150 | 3400 | 129 | 3333 |
| General Berthelot | 61 | 3400 | 100 | 2300 | 70 | 2400 | 77 | 2700 |
| Pui | 220 | 3000 | 250 | 3630 | 250 | 4090 | 240 | 3573 |
| Răchitova | 43 | 2790 | 40 | 2800 | 45 | 4511 | 43 | 3367 |
| Râu de Mori | 195 | 2800 | 335 | 3200 | 290 | 3200 | 273 | 3067 |
| Sarmizegetusa | 110 | 1000 | 32 | 1500 | 124 | 1600 | 89 | 1367 |
| Sălașu de Sus | 180 | 2500 | 114 | 2000 | 44 | 2810 | 113 | 2437 |
| Sântămăria-Orlea | 120 | 3400 | 241 | 2000 | 176 | 3000 | 179 | 2800 |
| Totești | 402 | 3200 | 836 | 3090 | 390 | 3961 | 543 | 3417 |
| Hațeg Country | 2301 | 2874 | 2778 | 2785 | 2240 | 3331 | 2440 | 2997 |

Source: data processed according to AGR2A and 2B files from DAJ Hunedoara and from the town halls [7-18]

From the point of view of the structure on the component localities, it is noteworthy the large share of Bretea Română and Totești localities that together hold more than a third (36.6%) of the cultivated area with wheat and rye of “Hațeg Country” in 2019.



Figure 1. Wheat crop from “Hațeg Country”

Table 3.
Share of cultivated areas with wheat and rye in the communes from “Hațeg Country”, %

| Locality | 2010 | 2015 | 2019 | Average |
|----------------------|--------------|--------------|--------------|--------------|
| Hațeg | 16,2 | 6,1 | 7,4 | 9,9 |
| Baru | 4,3 | 3,6 | 4,7 | 4,2 |
| Bretea Română | 16,1 | 16,2 | 19,2 | 17,2 |
| Densuș | 5,5 | 4,0 | 6,7 | 5,4 |
| General Berthelot | 2,7 | 3,6 | 3,1 | 3,1 |
| Pui | 9,6 | 9,0 | 11,2 | 9,9 |
| Răchitova | 1,9 | 1,4 | 2,0 | 1,8 |
| Râu de Mori | 8,5 | 12,1 | 12,9 | 11,2 |
| Sarmizegetusa | 4,8 | 1,2 | 5,5 | 3,8 |
| Sălașu de Sus | 7,8 | 4,1 | 2,0 | 4,6 |
| Sântămăria-Orlea | 5,2 | 8,7 | 7,9 | 7,2 |
| Totești | 17,5 | 30,1 | 17,4 | 21,7 |
| Hațeg Country | 100,0 | 100,0 | 100,0 | 100,0 |

Source: data processed according to AGR2A and 2B files from DAJ Hunedoara and from the town halls [7-18]

In “Hațeg Country”, mainly, is cultivated spring barley, which is used in animal feed. Barley has a very low share of the cultivated area, due to the unfavorable conditions in the area for this crop. The area cultivated with barley and barley has a slight growth trend, from 543 ha in 2010, to 585 ha in 2019. The largest cultivated areas, in 2019, are found in the communes of Bretea Română (150 ha), Sălașu de Sus (118 ha) and Pui (110

ha). The average production in the area is quite low compared to the national average (4400 kg / ha), for the same reasons related to the limiting conditions of relief and climate.

Table 4.

Evolution of cultivated areas (ha) and yields (kg / ha) obtained from barley in Hațeg Country

| Locality | 2010 | | 2015 | | 2019 | | Average | |
|----------------------|------------|--------------------|------------|--------------------|------------|--------------------|------------|--------------------|
| | Area | Average production | Area | Average production | Area | Average production | Area | Average production |
| Hațeg | 64 | 2328 | 20 | 2000 | 30 | 2666 | 38 | 2331 |
| Baru | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Bretea Română | 80 | 2350 | 130 | 3000 | 150 | 2733 | 120 | 2694 |
| Densuș | 9 | 2778 | 25 | 3000 | 20 | 2800 | 18 | 2859 |
| General Berthelot | 0 | 0 | 5 | 1600 | 10 | 1800 | 8 | 1700 |
| Pui | 110 | 1600 | 110 | 1818 | 110 | 1818 | 110 | 1745 |
| Răchitova | 0 | 0 | 1 | 2000 | 8 | 3250 | 5 | 2625 |
| Râu de Mori | 0 | 0 | 20 | 2400 | 50 | 2400 | 35 | 2400 |
| Sarmizegetusa | 16 | 1250 | 10 | 1400 | 5 | 1300 | 10 | 1317 |
| Sălașu de Sus | 150 | 2000 | 92 | 1400 | 118 | 2550 | 120 | 1983 |
| Sântămăria-Orlea | 80 | 2100 | 113 | 1974 | 57 | 2000 | 83 | 2025 |
| Totești | 34 | 2176 | 14 | 2992 | 27 | 3444 | 25 | 2871 |
| Hațeg Country | 543 | 2073 | 540 | 2144 | 585 | 2433 | 556 | 2217 |

Source: data processed according to AGR2A and 2B files from DAJ Hunedoara and from the town halls [7-18]

Regarding the share of cultivated areas with barley in Hațeg Country, they represent 4.32% of the total cultivated arable area. Among the communes studied, during the analyzed period, it is found that the only commune in which barley was not cultivated was Baru, and in the communes General Berthelot, Răchitova and Sarmizegetusa, the cultivated areas do not exceed 10 ha annually.

Table 5.

Share of cultivated areas with barley by communes in Hațeg Country, %

| Locality | 2010 | 2015 | 2019 | Average |
|----------------------|--------------|--------------|--------------|--------------|
| Hațeg | 11,8 | 3,7 | 5,1 | 6,9 |
| Baru | - | - | - | - |
| Bretea Română | 14,7 | 24,1 | 25,6 | 21,5 |
| Densuș | 1,7 | 4,6 | 3,4 | 3,2 |
| General Berthelot | - | 0,9 | 1,7 | 1,3 |
| Pui | 20,3 | 20,4 | 18,8 | 19,8 |
| Răchitova | - | 0,2 | 1,4 | 0,8 |
| Râu de Mori | - | 3,7 | 8,5 | 6,1 |
| Sarmizegetusa | 2,9 | 1,9 | 0,9 | 1,9 |
| Sălașu de Sus | 27,6 | 17,0 | 20,2 | 21,6 |
| Sântămăria-Orlea | 14,7 | 20,9 | 9,7 | 15,1 |
| Totești | 6,3 | 2,6 | 4,6 | 4,5 |
| Hațeg Country | 100,0 | 100,0 | 100,0 | 100,0 |

Source: data processed according to AGR2A and 2B files from DAJ Hunedoara and from the town halls [7-18]

The areas cultivated with oats are very small, due to the modest yields obtained per unit area. In addition, they decreased in the analyzed period, by almost 25%, from 505 ha in 2010, to 392 ha in 2019.

Table 6.
Evolution of cultivated areas (ha) and yields (kg / ha) obtained from oat cultivation in Hațeg Country

| Locality | 2010 | | 2015 | | 2019 | | Average | |
|----------------------|------------|--------------------|------------|--------------------|------------|--------------------|------------|--------------------|
| | Area | Average production | Area | Average production | Area | Average production | Area | Average production |
| Hațeg | 35 | 1685 | 80 | 2000 | 0 | 0 | 58 | 1843 |
| Baru | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Bretea Română | 50 | 2300 | 30 | 2000 | 50 | 2500 | 43 | 2267 |
| Densuș | 12 | 1583 | 5 | 3000 | 5 | 2100 | 7 | 2228 |
| General Berthelot | 0 | 0 | 3 | 1333 | 0 | 0 | 3 | 1333 |
| Pui | 120 | 1400 | 120 | 1416 | 120 | 1416 | 120 | 1411 |
| Răchitova | 4 | 1500 | 5 | 1400 | 4 | 2250 | 4 | 1717 |
| Râu de Mori | 55 | 1400 | 0 | 0 | 0 | 0 | 55 | 1400 |
| Sarmizegetusa | 10 | 800 | 7 | 1428 | 10 | 1250 | 9 | 1159 |
| Sălașu de Sus | 150 | 1600 | 112 | 1400 | 110 | 2000 | 124 | 1667 |
| Sântămăria-Orlea | 50 | 1600 | 70 | 1500 | 73 | 1600 | 64 | 1567 |
| Totești | 19 | 1579 | 21 | 1900 | 20 | 2000 | 20 | 1826 |
| Hațeg Country | 505 | 1545 | 453 | 1738 | 392 | 1890 | 450 | 1724 |

Source: data processed according to AGR2A and 2B files from DAJ Hunedoara and from the town halls [7-18]

The largest share is held by Pui commune (30.6%), which, together with Sălașu de Sus commune, amounts to 58.7% of the total area cultivated with oats in Hațeg Country.

Table 7.
The share of cultivated area with oat by communes in Hațeg Country, %

| Locality | 2010 | 2015 | 2019 | Average |
|-----------------------|--------------|--------------|--------------|--------------|
| Hațeg | 6,9 | 17,7 | - | 8,2 |
| Baru | - | - | - | 0,0 |
| Bretea Română | 9,9 | 6,6 | 12,8 | 9,8 |
| Densuș | 2,4 | 1,1 | 1,3 | 1,6 |
| General Berthelot | - | 0,7 | - | 0,7 |
| Pui | 23,8 | 26,5 | 30,6 | 27,0 |
| Răchitova | 0,8 | 1,1 | 1,0 | 1,0 |
| Râu de Mori | 10,9 | - | - | 10,9 |
| Sarmizegetusa | 2,0 | 1,5 | 2,6 | 2,0 |
| Sălașu de Sus | 29,7 | 24,7 | 28,1 | 27,5 |
| Sântămăria-Orlea | 9,9 | 15,5 | 18,6 | 14,7 |
| Totești | 3,8 | 4,6 | 5,1 | 4,5 |
| Țara Hațegului | 100,0 | 100,0 | 100,0 | 100,0 |

Source: data processed according to AGR2A and 2B files from DAJ Hunedoara and from the town halls [7-18]

The main cereal grown in Hațeg Country is maize, which has a share of 35.4% of the total cultivated arable land. This share is a consequence of the favorable climatic conditions in the area for this crop and the fact that it is the main cereal used in animal husbandry. The yield for this crop is higher than for other cereals, however there are large

differences between localities and agricultural years. Even if the applied technologies have improved (high-performance machines and hybrids), the average production in this crop is still largely dependent on climatic conditions. Unfortunately, a major shortcoming is the lack of irrigation, which could lead to high yields for this crop.

Table 8.

Evolution of cultivated areas (ha) and yields (kg / ha) obtained from maize in Hațeg Country

| Locality | 2010 | | 2015 | | 2019 | | Average | |
|----------------------|-------------|--------------------|-------------|--------------------|-------------|--------------------|-------------|--------------------|
| | Area | Average production | Area | Average production | Area | Average production | Area | Average production |
| Hațeg | 382 | 3240 | 550 | 1400 | 144 | 3458 | 359 | 2699 |
| Baru | 200 | 4200 | 200 | 4200 | 200 | 8000 | 200 | 5467 |
| Bretea Română | 470 | 3000 | 600 | 2800 | 650 | 2800 | 573 | 2867 |
| Densuș | 352 | 3450 | 380 | 1000 | 400 | 3500 | 377 | 2650 |
| General Berthelot | 178 | 3247 | 440 | 1500 | 458 | 5458 | 359 | 3402 |
| Pui | 820 | 3200 | 820 | 3048 | 820 | 2500 | 820 | 2916 |
| Răchitova | 387 | 2801 | 369 | 1400 | 327 | 4000 | 361 | 2734 |
| Râu de Mori | 245 | 3100 | 405 | 3200 | 440 | 3090 | 363 | 3130 |
| Sarmizegetusa | 166 | 1200 | 60 | 2000 | 161 | 2100 | 129 | 1767 |
| Sălașu de Sus | 200 | 3000 | 380 | 1300 | 340 | 2500 | 307 | 2267 |
| Sântămăria-Orlea | 150 | 3560 | 264 | 1758 | 400 | 6000 | 271 | 3773 |
| Totești | 308 | 3200 | 465 | 4100 | 447 | 2000 | 407 | 3100 |
| Hațeg Country | 3858 | 3100 | 4933 | 2309 | 4787 | 3784 | 4526 | 3064 |

Source: data processed according to AGR2A and 2B files from DAJ Hunedoara and from the town halls [7-18]

The largest share, in 2019, is held by the commune of Pui (17.1%), which, together with the communes of Bretea Română, General Berthelot, Totești and Râu de Mori cultivates 58.8% of the total area with maize in Hațeg Country.

Table 9.

The share of cultivated areas with maize for grain in communes in Hațeg Country, %

| Locality | 2010 | 2015 | 2019 | Average |
|----------------------|--------------|--------------|--------------|--------------|
| Hațeg | 9,9 | 11,1 | 3,0 | 8,0 |
| Baru | 5,2 | 4,1 | 4,2 | 4,5 |
| Bretea Română | 12,2 | 12,2 | 13,6 | 12,6 |
| Densuș | 9,1 | 7,7 | 8,4 | 8,4 |
| General Berthelot | 4,6 | 8,9 | 9,6 | 7,7 |
| Pui | 21,3 | 16,6 | 17,1 | 18,3 |
| Răchitova | 10,0 | 7,5 | 6,8 | 8,1 |
| Râu de Mori | 6,4 | 8,2 | 9,2 | 7,9 |
| Sarmizegetusa | 4,3 | 1,2 | 3,4 | 3,0 |
| Sălașu de Sus | 5,2 | 7,7 | 7,1 | 6,7 |
| Sântămăria-Orlea | 3,9 | 5,4 | 8,4 | 5,9 |
| Totești | 8,0 | 9,4 | 9,3 | 8,9 |
| Hațeg Country | 100,0 | 100,0 | 100,0 | 100,0 |

Source: data processed according to AGR2A and 2B files from DAJ Hunedoara and from the town halls [7-18]



Figure 2. Corn field – Hațeg Country
(foto: Adrian Băneș)

Another important crop in the area, taking into account the cultivated areas, is represented by the potato, in Hațeg Country being a tradition for it. The cultivated areas vary from one locality to another (45 ha in General Berthelot commune, respectively 250 ha in Pui commune, in 2019), however, the total cultivated area at Hațeg Country level is remaining constant, around 1900 ha. The technical endowment has improved for this crop, with farmers purchasing planting equipment and potato harvesters, eliminating thus, largely, the physical labor.

Table 10.
Evolution of cultivated areas (ha) and yields (kg / ha) obtained from potato culture in Hațeg Country

| Locality | 2010 | | 2015 | | 2019 | | Average | |
|----------------------|-------------|--------------------|-------------|--------------------|-------------|--------------------|-------------|--------------------|
| | Area | Average production | Area | Average production | Area | Average production | Area | Average production |
| Hațeg | 205 | 12931 | 120 | 7000 | 118 | 12881 | 148 | 10937 |
| Baru | 100 | 13000 | 100 | 18000 | 100 | 18000 | 100 | 16333 |
| Breteia Română | 180 | 12000 | 200 | 8000 | 200 | 8000 | 193 | 9333 |
| Densuș | 125 | 12400 | 223 | 7000 | 180 | 9540 | 176 | 9647 |
| General Berthelot | 70 | 12400 | 45 | 8511 | 45 | 8933 | 53 | 9948 |
| Pui | 250 | 11000 | 250 | 12000 | 250 | 2500 | 250 | 8500 |
| Răchitova | 154 | 11500 | 159 | 9000 | 139 | 8000 | 151 | 9500 |
| Râu de Mori | 136 | 14375 | 190 | 16315 | 195 | 14359 | 174 | 15016 |
| Sarmizegetusa | 130 | 5000 | 55 | 7000 | 130 | 6800 | 105 | 6267 |
| Sălașu de Sus | 230 | 15000 | 242 | 8000 | 220 | 14000 | 231 | 12333 |
| Sântămăria-Orlea | 140 | 12400 | 200 | 7000 | 200 | 13750 | 180 | 11050 |
| Totești | 176 | 12500 | 108 | 14733 | 115 | 19782 | 133 | 15672 |
| Hațeg Country | 1896 | 12042 | 1892 | 10213 | 1892 | 11379 | 1893 | 11211 |

Source: data processed according to AGR2A and 2B files from DAJ Hunedoara and from the town halls [7-18]

The share of the areas cultivated with potatoes in Hațeg Country, do not show great variations from one commune to another, being approximately in the range of 5-10%, except for Pui commune (13.2%) and General Berthelot commune (2.4 %).

Table 11.

The share of cultivated areas with potatoes by communes in Hațeg Country, %

| Locality | 2010 | 2015 | 2019 | Average |
|----------------------|--------------|--------------|--------------|--------------|
| Hațeg | 10,8 | 6,3 | 6,2 | 7,8 |
| Baru | 5,3 | 5,3 | 5,3 | 5,3 |
| Bretea Română | 9,5 | 10,6 | 10,6 | 10,2 |
| Densuș | 6,6 | 11,8 | 9,5 | 9,3 |
| General Berthelot | 3,7 | 2,4 | 2,4 | 2,8 |
| Pui | 13,2 | 13,2 | 13,2 | 13,2 |
| Răchitova | 8,1 | 8,4 | 7,3 | 8,0 |
| Râu de Mori | 7,2 | 10,0 | 10,3 | 9,2 |
| Sarmizegetusa | 6,9 | 2,9 | 6,9 | 5,5 |
| Sălașu de Sus | 12,1 | 12,8 | 11,6 | 12,2 |
| Sântămăria-Orlea | 7,4 | 10,6 | 10,6 | 9,5 |
| Totești | 9,3 | 5,7 | 6,1 | 7,0 |
| Hațeg Country | 100,0 | 100,0 | 100,0 | 100,0 |

Source: data processed according to AGR2A and 2B files from DAJ Hunedoara and from the town halls [7-18]

In Hațeg Country vegetables are grown both in households and in the field, on areas that vary from one locality to another, mainly for their own consumption. The largest areas are cultivated with cabbage, tomatoes, onions, carrots, beans and peppers, their shares varying from one locality to another. Household members devote much of their time to the maintenance of vegetable crops, which are mainly fertilized with manure from farm animals.



Figure 3. Vegetable crops in field – Hațeg Country
(foto: Miroslav Raicov)

Table 12.
The evolution of cultivated areas (ha) and yields (kg / ha) obtained from vegetables in Hațeg Country

| Locality | 2010 | | 2015 | | 2019 | | Average | |
|----------------------|------------|--------------------|------------|--------------------|------------|--------------------|------------|--------------------|
| | Area | Average production | Area | Average production | Area | Average production | Area | Average production |
| Hațeg | 60 | 12616 | 60 | 7133 | 50 | 12400 | 57 | 10716 |
| Baru | 30 | 11400 | 33 | 9757 | 32 | 7937 | 32 | 9698 |
| Breteia Română | 194 | 14252 | 180 | 9533 | 190 | 9163 | 188 | 10983 |
| Densuș | 52 | 12192 | 42 | 7845 | 50 | 9880 | 48 | 9972 |
| General Berthelot | 22 | 11909 | 20 | 6700 | 20 | 7050 | 21 | 8553 |
| Pui | 140 | 13057 | 140 | 12580 | 140 | 12850 | 140 | 12829 |
| Răchitova | 55 | 12545 | 79 | 11595 | 99 | 11656 | 78 | 11932 |
| Râu de Mori | 47 | 11660 | 48 | 18729 | 47 | 18851 | 47 | 16413 |
| Sarmizegetusa | 62 | 5645 | 8 | 8500 | 59 | 7230 | 43 | 7125 |
| Sălașu de Sus | 80 | 10050 | 78 | 4000 | 76 | 7131 | 78 | 7060 |
| Sântămăria-Orlea | 70 | 11443 | 90 | 5844 | 90 | 10000 | 83 | 9096 |
| Totești | 46 | 12740 | 74 | 10540 | 76 | 13500 | 65 | 12260 |
| Hațeg Country | 858 | 11626 | 852 | 9396 | 929 | 10637 | 880 | 10553 |

Source: data processed according to AGR2A and 2B files from DAJ Hunedoara and from the town halls [7-18]

Larger areas (cultivated with vegetables in 2019), we find in the localities of Bretea Română and Pui, 190 ha, respectively 140 ha, which together with the commune of Răchitova and Sântămăria-Orlea have a share of 56% of the total area cultivated with vegetables.

Table 13.
The share of areas cultivated with vegetables on localities from Hațeg Country, %

| Locality | 2010 | 2015 | 2019 | Average |
|----------------------|--------------|--------------|--------------|--------------|
| Hațeg | 7,0 | 7,0 | 5,4 | 6,5 |
| Baru | 3,5 | 3,9 | 3,4 | 3,6 |
| Breteia Română | 22,6 | 21,1 | 20,5 | 21,4 |
| Densuș | 6,1 | 4,9 | 5,4 | 5,5 |
| General Berthelot | 2,6 | 2,3 | 2,2 | 2,4 |
| Pui | 16,3 | 16,4 | 15,1 | 15,9 |
| Răchitova | 6,4 | 9,3 | 10,7 | 8,8 |
| Râu de Mori | 5,5 | 5,6 | 5,1 | 5,4 |
| Sarmizegetusa | 7,2 | 0,9 | 6,4 | 4,8 |
| Sălașu de Sus | 9,3 | 9,2 | 8,2 | 8,9 |
| Sântămăria-Orlea | 8,2 | 10,6 | 9,7 | 9,5 |
| Totești | 5,4 | 8,7 | 8,2 | 7,4 |
| Hațeg Country | 100,0 | 100,0 | 100,0 | 100,0 |

Source: data processed according to AGR2A and 2B files from DAJ Hunedoara and from the town halls [7-18]

CONCLUSIONS

The obtained results show that during the studied years, the total cultivated area underwent transformations, in the sense of increasing by almost 1500 ha in 2015 compared to 2010, followed by a decrease by over 600 ha in 2019 compared to 2015. This decrease it finds not in the transformation of the destination of some lands in pastures or hayfields, because the number of animals in the area, with the exception of sheep and goats, has suffered significant decreases. Even in the case of sheep and goats, their number has not increased so much as to justify a possible increase in the area of pastures, especially since

there are others due to the decrease in the number of cattle and horses. The only explanation left is that these areas remained uncultivated.

If we refer to the cultivated areas, maize is grown the most (predominant in Pui and Bretea Română localities), followed by wheat (predominantly in Totești and Bretea Română) and potato (predominantly in Pui, Sălașu de Sus and Bretea Română). Barley and oats did not have and do not have a high share even today, especially due to the decrease in the number of animals and birds, being cultivated mainly in the southern part of the area.

The potato, a traditional crop in the area, has not changed in terms of cultivated areas, but the productions obtained were below the value obtained in 2010, despite new technologies and equipment. No significant changes were found in areas cultivated with vegetables, the increase being about 80 ha in 2019, compared to 2010 and 2015, respectively. The yields per hectare obtained were in 2019 below the value in 2010, but above that in 2015 (the weakest of the three), mainly vegetables being grown for own consumption.

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