STUDIES REGARDING THE DEVELOPMENT OF VEGETAL PRODUCTION IN CORVURLUI PLATEAU, GALATI COUNTY

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Covurlui Plateau has a big part of Galati county being located in the central and northern part of it. It is an area with an important agricultural, economic and social potential because of the available resources.

The undertaken study makes a diagnosis structures of the main resources at its disposal area, i.e the natural, agricultural and demographic resources, as well as those aimed at infrastructure.

The relief area is characterized by high plain, with a temperate continental climate. As regards the soils, there is a large variety, predominating the chernozems in different stages of decomposition.

Agricultural area is 116638 ha, representing about a third of the county's agricultural area. The arable land holds the weight-78.0%, followed by natural pastures-16.4% vineyards-5.2% -- and orchards 0.4%. The private sector represents 94.9% of the area.

As regards the structure of the crops, the grain seeds occupy 62.4%, of which the maize seeds 36.1% surfaces are occupied by sunflower and rapeseed oil, which together have 20.4% other crops hold under 5% of the area.

From the organizational point of view, the agriculture zone comprises all types of structures. The share agricultural area of the area have individual households with 60.2% followed by agricultural companies with 25.3% The rest holding structures, each, below the surface 6%.

The average yields are far from the potential of the soils because, in particular, of lack of irrigations. At wheat for consumption – 3000 kg/ha, at agrain maize – 2200 kg/ha, soy– 1200 kg/ha, sunflower1100 kg/ha, vegetables 14000 kg/ha.

In the area, the vineyards hold 6126 ha, 39% of the area with vines of the county, with an average production of 4220 kg/ha, orchards occupy 470 ha, with an average production of 2500 kg/ha.

Key words: agriculture, Corvului Plateau, structure, productivity, organization.

MATERIAL AND METHOD

For the survey there was used for official statistical data from County Statistics Direction of Galati and the DADR Galati. He also used the classical methodology specific technical economic analysis. indicators used refers to the size and structure of

agricultural areas, branches of production structure vegetable, average and total yields. They were identified on trends in the future development branches of production plant.

RESULTS AND DISCUSSIONS

General aspects

Covurlui Plateau is located in the southern part of Moldova Province, part of Galati county.

From the geomorphologic point of view it belongs to Moldova or embossed generally dully, large and small trays with highs long what deducted in height to the south. A feature of this note is parallelism units and character of the network consistently basins which direction is north-south Suhurlui as the weather, Lozova, Malina, Catusa as separating peak extend, giving them aspect of hills.

The climate of the zone belongs to the whole sector mainland climate. The southern and central part falls into the land of climate of plain, and the northern tip of hill climate.

In both climatic lands, the summers are very warm and dry, and frosty winters, marked by their but frequent interruptions and of the climatic inversions.

The amount of atmospheric precipitations was on average of 636.8 mm, unequal distributed during the year.

As for soils, share holding a chernozems with normal carbonate profile, and chernozems in various stages of degradation. In low areas there are chernozems ground, gray soils of forest and reddish grey meet in the highest relief in the north of Covurlui Plateau. These soils along with chernozems offer favourable conditions for developing plants.

Types of exploitations

In the area studied, individual agricultural households hold over 60% of the agricultural area over the zone (*table 1*).

Types of exploitations and agricultural area

Table 1

| | • | • | |
|----------|---|--------|-------|
| Nr. crt. | Types of agricultural exploitations | Nr. | % |
| 1. | Private agricultural farms | 4183 | 3,6 |
| 2. | Private commercial agricultural companies | 29561 | 25,3 |
| 3. | State commercial companies | 6051 | 5,2 |
| 4. | Family associations | 6675 | 5,7 |
| 5. | Private agricultural households | 70168 | 60,2 |
| | TOTAL | 116638 | 100.0 |

These households have reduced size, to 3 hectares, without mechanized means were practically subsistence, which would ensure a weak economic power. No other structures, except agricultural companies have a big development, which makes the economic efficiency throughout agriculture area will be limited.

Structure of categories of use

Of the total area of Covurlui Plateau of 116 638 hectares, arable land deals for the most part, i.e 78.0%(fig. 1).

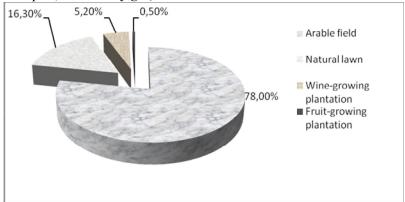


Figure 1 Structure of agricultural land

Other categories of service have areas reduced except natural pastures, with 16.3%.

Structure of cultures

In Covurlui Plateau, the main crops are cereals for oily seeds and plants (table 2).

Structure of cultures

Table 2

| Nr. crt. | Specification | ha | % |
|----------|-------------------------------------|-------|-------|
| | Total arable | 90986 | 100,0 |
| 1. | Grain cereals | 56833 | 62,4 |
| | Of which: -autumn wheat | 20358 | 22,4 |
| | -grain maize | 32882 | 36,1 |
| 2. | Cereals for grains | 249 | 0,4 |
| 3. | Leguminous for grains | 938 | 1,0 |
| 4. | Oily plants | 18572 | 20,4 |
| | Of which: -sunflower | 11946 | 13,1 |
| | -rape | 6626 | 7,3 |
| 5. | Medicinal and aromatic plants | 2047 | 2,2 |
| 6. | Potatoes – total | 416 | 0,4 |
| 7. | Vegetables | 1381 | 1,6 |
| 8. | Fodder plants | 4315 | 4,7 |
| 9. | Other cultures + uncultivated field | 6235 | 6,9 |

Cereals for grain occupies 62.4% of the surface, of which wheat consumption 22.4% and maize seeds 36.1%. Among other crops, plants oily hold 20.4% of the area i.e sunflower with 13.1% and rape in 7.3%

Plants feed hold 4.7% of surface, and potato with 416 ha is intended for their own consumption.

In some towns: Baneasa, Covadinesti, Fartasesti, Beresti, Baleni, Cudalbi and Corod, in recent years has begun cultivating medicinal and aromatic plants qualities and mustard, which, in 2008 have a busy area of 2047 hectares (72%) of the area cultivated with these plants in the Galati county.

As far as this is a sector with tradition in the county Galati, especially in the area Tecuci town and Matca and Corod villages.

If analyzed development areas in the period 2006-2008 are found growing the crops cereal crops, i.e durum for consumption by 31% and barley with 20%. It has reduced the area planted with maize seeds with 4%.

Significant increases recorded at rape, the area has increased four times.

The increases are important at medicinal and aromatic plants (coriander and mustard), and forage crops.

The increases were recorded on the set to land within three years, has been reduced from 13904 ha to 4691 hectares.

Total and average productions

Average yields in the range of time examined, have recorded fluctuations determined in particular climatic factors of the variation, and in case of the total output, has stepped in and change in areas.

Here is in *table 3* the evolution of the total output to some crops.

Evolution of total productions

Table 3

| Nr. crt. | Specification | UM | Years | | |
|----------|-------------------|----|--------|-------|--------|
| | | | 2006 | 2007 | 2008 |
| 1. | Consumption wheat | t | 33731 | 16744 | 61552 |
| | | % | 100,0 | 49,6 | 182,5 |
| 2. | Grain maize | t | 100994 | 22142 | 80494 |
| | | % | 100,0 | 21,9 | 79,7 |
| 3. | Sunflower | t | 18907 | 5919 | 14027 |
| | | % | 100,0 | 31,3 | 74,2 |
| 4. | Rape | t | 2713 | 3934 | 19064 |
| | | % | 100,0 | 145,0 | 702,7 |
| 5. | Sugarbeet | t | 2750 | - | - |
| | | % | 100,0 | - | - |
| 6. | Coriander | t | - | - | 1055 |
| | | % | - | - | 100,0 |
| 7. | Mustard | t | 246 | 190 | 163 |
| | | % | 100,0 | 77,2 | 66,3 |
| 8. | Field vegetables | t | 23878 | 16652 | 18724 |
| | | % | 100,0 | 69,7 | 78,4 |
| 9. | Fodder plants | t | 88693 | 58979 | 108046 |
| | | % | 100,0 | 66,5 | 121,8 |

Analysis of data from the table shows us that 2007 was unfavourable to all other crops, except rape culture. It was a capricious year, with great climatic variations, in which drought in the second part of the year had adverse effects on average yields.

2008 was capricious in terms of weather conditions, favourable for some crops (wheat, rape, plants feed) and unfavourable for others, in particular for growing maize for seeds. Negative deviations were recorded and the other cultures: sunflower, mustard, vegetable field.

Average productions

What characterizes area is the lack of stability it yields average determined by the inconsistency of the climatic limitative factors, i.e the people. The area is limited to areas of irrigation system, which makes the water factor to take a strong character on the average yields level.

We present in *table 4*, the average yields on the main crops in the period 2006-2008.

Table 4 Evolution of average productions at main cultures

| Nr. crt. | Specification | UM | Anii | | |
|----------|-------------------|-------|-------|-------|-------|
| | | | 2006 | 2007 | 2008 |
| 1. | Wheat consumption | Kg/ha | 2173 | 1183 | 3020 |
| | | % | 100,0 | 54,4 | 139,0 |
| 2. | Grain maize | Kg/ha | 2967 | 579 | 2448 |
| | | % | 100,0 | 19,5 | 82,5 |
| 3. | Sunflower | Kg/ha | 1387 | 507 | 1174 |
| | | % | 100,0 | 37,0 | 84,6 |
| 4. | Rape | Kg/ha | 1580 | 741 | 1519 |
| | | % | 100,0 | 46,9 | 96,1 |
| 5. | Barley | Kg/ha | 2035 | 763 | 2460 |
| 5. | | % | 100,0 | 37,5 | 120,0 |
| 6. | Oat | Kg/ha | 1487 | 614 | 2409 |
| | | % | 100,0 | 41,3 | 162,0 |
| 7. | Peas | Kg/ha | 2806 | 603 | 2037 |
| | | % | 100,0 | 21,5 | 72,6 |
| 8. | Beans | Kg/ha | 1563 | 408 | 1022 |
| | | % | 100,0 | 26,1 | 65,4 |
| 7. | Mustard | Kg/ha | 290 | 118 | 545 |
| | | % | 100,0 | 40,7 | 187,9 |
| 8. | Field vegetables | Kg/ha | 16964 | 11954 | 13558 |
| | | % | 100,0 | 70,5 | 79,9 |
| 9. | Fodder plants | Kg/ha | 29127 | 18080 | 25039 |
| | | % | 100,0 | 62,1 | 86,0 |

The content of *table 4* shows that in 2007 there have been achieved levels of yields average in most cultures of two to four times lower than the previous year, 2006. Thus, the maize grains production average was 80.5% less, the peas with 78.5% and the beans with 73.9%. The following year, 2008, was almost normal from from the climatic point of view, average yields approaching, in large measure, the level of the year (2006), and for cereals crops exceeding level recorded two years before.

Wine heritage in the county Galati, the end of 2009 was of 19568 hectares, of which live on 15715 ha 3853 ha land in training. The structure, the noble vineyards held 56.9% the hybrid vineyards, the difference in 43.1%.

In both vineyard, and especially of those fruit-growing areas have decreased, by grubbing areas which have exceeded operating age and lack of aid unfit by their owner, because lower financial possibilities.

CONCLUSIONS

- 1. Covurlui Plateau, placed in the southern part of Moldova Province, is an area with a high agricultural potential, owing in particular soils of very good quality.
- 2. The area presents a low level of productivity because of the lack of factors of production up one level, including water and chemicals for fertilization and combat pests and diseases. The level of mechanization is also reduced.
- 3. The organizational structures are poorly developed, predominantly holdings of small 2-4 hectares, with a low level of mechanization and with a low economic efficiency.
- 4. Creating holdings of average size, possessing the networks of irrigation, in which to practical modern technologies, represents the path of economic growth over the area.

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