



Studies regarding the optimization for crop plant farms in Brăila field

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One of the micro, the most important bridge to the agricultural potential, is the Plain of Braila. This microzone is located in the north-eastern Romanian Plain, with the neighbors to the west, north and east geographical formations nature plain and the Danube south. The climate is temperate continental with hot and dry summers and cold winters. The average annual temperature is 10.4°C and average rainfall - 447 mm recorded a deficit of water is 258 mm, which determines the need of irrigation. To optimize the structure of crops has made a case study of the field holding a Braila, SC Agro-Group Import-Export SRL Braila. Optimization was done using linear-programming. He developed an economic-mathematical model for one of the two bodies namely body Siliștea society, with an area of 400 hectares. Profit maximization objective function followed. After solving the resulting model a new structure different from the existing structure. Corn grain holds 37.5% of the surface, with 10% more than the old structure. Most area for maize seed is 32.5%. It also increased the area planted with winter barley seed, from 2.5% to 20%, at the expense of consumption. If winter wheat area for consumption decreased by 50%, increasing slightly the area of wheat seed. In the rape seed crops. In the culture of rape and sunflower seed, they were maintained at a constant level of 12.5%. Level economic indicators of the two structures, we show that if optimized structure, both the income and gross profits are higher than the existing version. Total income is higher by 219.14 thousand lei, and profit by 134.79 thousand lei, if optimized version. In addition, areas of different sizes allow you to create a rotation crop favorable from the technological point of view.