



Research regarding the influence of both fertilization and climatic conditions, in sunflower, under Dobrudja region conditions

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The sunflower gains an important place in agriculture, on all over the world due to its undoubtedly economic advantages. To increase the yield per hectare it is necessary to choose, for cultivation, hybrids adapted to pedoclimatic conditions of the area as well as to use a technology adequate to requirements of the utilized hybrid. The present paper is in line with this objective, to establish the optimum fertilizer rates, in order to achieve the biological potential of the hybrid, but at the same time, economically efficient ones. The researches were performed in two locations of Constanta county, respectively Nicolae Balcescu and Upper Pantelimonu, with different pedoclimatic conditions. In Nicolae Balcescu's area, the soil is typical chernozem, the air average temperature during sunflower vegetation period was of 18,3°C, there were registered 198.8 mm rainfalls and 12 consecutive days with temperatures over 30°C. In Upper Pantelimonu, the soil is kastanoziom (ground soil), the air average temperature during sunflower vegetation period was of 19,8°C, there were registered 142.5 mm rainfalls. In both locations, the hybrid Favorit was used. In plot with no fertilizers, yield of 3200 kg/ha was achieved in N. Balcescu area, respectively 1690 kg/ha in Upper Pantelimonu area. In plot fertilized with N60P60, yield of 3470 kg/ha was achieved in N. Balcescu area, respectively 1860 kg/ha in Upper Pantelimonu area. The sunflower crop was economical only in N. Balcescu area, with a benefit of 1195 ron/ha, under non-fertilization and 952 ron/ha under N60P60 fertilization. The performed researches emphasized the fact that the temperatures and rainfalls during sunflower vegetation stages had a stronger influence on yield than fertilization, this being less utilized under drought conditions.