RESEARCH REGARDING THE MAIN PRODUCTION AND QUALITY INDICES OF SOME CORN HYBRIDS CULTIVATED IN THE BANAT AREA

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Abstract
In this paper we have studied the main indices of quality and production of 20 maize hybrids cultivated in climatic conditions specific to the Banat area. For this purpose we have grown in terms of conventional technology the 20 hybrids in comparative production plots of 0.5 ha / hybrid, the experimental field being located in Becicherecul Mic. Through this experiment we determined the following parameters: leaf area, productivity and the amount of starch and protein in beans. Experiments have shown that there are significant genetic differences among the 20 hybrids studied both in terms of quality and productivity. The leaf area was determined using a portable AM-300 scanner, recorded values being between these limits 2680 cm2/pl and 5877 cm2/pl, the experience media determined was 3767 cm2/pl.
The determinations were made when the plants were in stage 7.9 according to BBCH decimal unit code. Increased average leaf area / plant is directly influenced by the early stage of studied hybrids, the best results occurring in early hybrids. Regarding production qualities the results pointed out that productivity limits ranged between 10.25 t / ha in early hybrids and 14.87 t / ha for full mid season maturity hybrids. Grain quality was determined using a grain analyzer after NIR method. The main quality attributes tracked were: grain content in starch and protein substances. Thus in terms of starch content best results were obtained in full mid season maturity hybrids (79.47 %) while higher protein content was recorded in short mid season maturity hybrids (10.27 %).

Key words: maize, bioproductivity, leaf area, starch content

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