Structure analysis of the productivity of some alfalfa (medicago sativa l.) Varieties

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In the period of 1995-1999 the experiment was conducted on the field at the Agricultural University - Plovdiv. In the experiment there were included three Bulgarian alfalfa varieties – Nadezda 2, Prista and Victoria. The experiment was carried out in a randomized block design in four replication and size of 10 m2. Correlation coefficients among yield components were calculated by using SPSS 7.5 for Windows. The direct and indirect effects of these components on green mass yield were computed by Path-analysis LIZREL8.0 Student edition. There were established that for the first year the correlation among the components showed that shoot weight and leaves weight were important for the yield of trifoliate varieties. During the next years for all varieties the direct effect on yield had the following components: leaves weight, shoot weight, flowers weight. Our data suggest that selection based on leaf weight and leaves area could be an important criterium for the improvement yield and quality of alfalfa
Key words: alfalfa, yield components, path coefficients