

PHYLOGENETIC ANALYSIS OF TEA CLONES USING RAPD MARKERS IN TURKEY

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Summary

In this research, RAPD (Random Amplified Polymorphic DNA) analysis was employed to determine the genetic similarity of 8 tea clones (*Camellia sinensis* (L.) O. Kuntze) grown in Turkey by using 10 decamer primers. The genetic relationship among clones was estimated based on similarity index and cluster analysis. The lowest similarity (0,490) obtained was found between "Hayrat-1" and "Ardeşen", the highest similarity (0,750) obtained was between "Hayrat-2a" and "Hayrat-2b".

Utilising cluster analysis, 4 clones were classified in the first branch of dendogram while the others were classified in the second branch of dendogram. The average similarity between the two branches was 0,612. The primers, OPAB-03, 04, 05, 07, 09, 11, 14, 16, 18, and 19 showed polymorphic bands among the primers tested. Amplified fragments ranged from 300 to 1000 base pairs and the number of bands for each primer varied 2 to 10. The results obtained agrees well with those of Rize Çay Institute.