

## RAPD analysis of selected local Turkish grape cultivars (*Vitis vinifera*)

H. Karataş<sup>1</sup> and Y.S. Ağaoğlu<sup>2</sup>

<sup>1</sup>Dicle University, Faculty of Agriculture,  
Department of Horticulture, Diyarbakır, Turkey

<sup>2</sup>Ankara University, Faculty of Agriculture,  
Department of Horticulture, Dışkapı, Ankara, Turkey

Corresponding author: H. Karataş

E-mail: hkaratas@dicle.edu.tr / karatas2172@yahoo.com

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**ABSTRACT.** Turkey is very rich in local grape varieties. The solution to the problem of identifying local cultivars, which is considered an important deficiency for the region, will only be possible when they can be defined with molecular markers. Forty-nine local grapevine cultivars from Şanlıurfa (Turkey) were characterized with RAPD markers. Twenty-five decamer primers selected from 60 primers were used in this analysis. A total of 171 bands were obtained with the 25 primers, of which 112 were polymorphic; the level of DNA polymorphism was 65.49% in these local cultivars. Among the selected primers, OPA-18, OPO-07 and P-123 gave the maximum number of polymorphic bands (seven). Genetic relationships among these cultivars were determined with a similarity index and using a dendrogram. Among the grape cultivars, the lowest similarity ratio (0.578) was observed among the Külahi-Kızılbanki cultivars and the highest similarity ratio (0.908) was observed for the Çilorut-Dökülgen combination. The high similarity ratio among the grape cultivars of Şanlıurfa Province was also reflected in the dendrogram.

In general, no relationships were encountered between the genetic identification of the cultivars and their ampelographic properties.

**Key words:** *Vitis vinifera* L.; Molecular characterization; RAPD; Similarity index; Dendogram