

04-3-11

## Genetic Distance of 25 Grapevine Cultivars by Flavonoid Composition

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In order to get the basic information of chemotaxonomy, we analyzed the genetic distance of flavonoid compositions from 25 grapevine cultivars.

**Materials and Methods**

1. The leaves of 25 grape cultivars obtained in August, 2002.
2. Methods:
  - 1) flavonol identification: Purified flavonoids were identified by UV spectrum, acid hydrolyses,  $R_f$  values and retention times by HPLC and TLC.
  - 2) genetic distance analysis: Neighbor-joining tree(Saitou and Nei, 1987)

**Results and Discussion**

Quercetin 3-O-glucoside-7-O-glucuronic acid was present in all grapevines cultivars. But the other flavonols except this compound were unique to individual cultivar. This uniqueness implies that composition of flavonols is potent key for classification of grapevine cultivars.

As a result, we propose that flavonoid compounds can be used to make clear the relationship among 25 cultivars and compositions of flavonols in some cultivars include the sum of those in parent cultivars(Mun and Park, 1995).

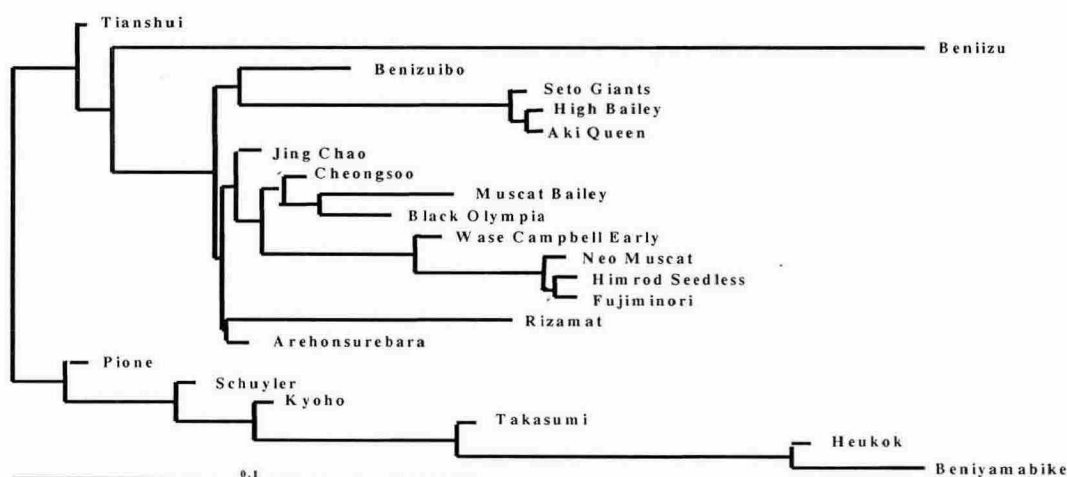


Figure 1. Neighbor-joining (NJ) tree for several grape cultivars. The network was produced by the NJ rooted method (Saitou and Nei, 1987)

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