Determination of chlorophyll densities of some grape varieties

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Abstract

Turkey possesses a rich variety of grape types; around 1250 varieties are grown. Turkey has traditionally specialized in the production table grapes and raisins. This study was conducted to determine chlorophyll densities of some grape varieties. It was done in 2010 year at Eğirdir Horticultural Research Institute. Eğirdir is a district of Isparta in Mediterranean Region. Its altitude is 920 m high and it represents passing zone climate and ecological conditions. Geographical coordinates of Eğirdir district; are 37º 50' 41", 38º 16' 55" N latitude, 30º 57' 43", 30º 44' 39" E latitude.

Chlorophyll densities had been determined by portable chlorophyll meter (Spad 502 plus). 28 local and popular grape varieties leaves had been evaluated for chlorophyll contents. Four Spad readings were averaged for each leaf to represent one observation. Two samples, each made of 4 leaf disks (1 cm² per disk), were taken at random with a hole punch from each leaf for chlorophyll determinations according to the method of Moran (1982). Average spad values ranged between (41.95- 28.58) for 28 grape variety. Alphonse Lavallée, Italia, Yalova İncisi, Trakya İlkeren, Hamburg Misketi, Barış, Burdur Dimriti, Flame Seedless, Red Globe, Ata Sarısı, Siyah Gemre, Razaki, Sultani Çekerdeksiz, Cardinal, Akgemre, Antep Büzgülü, Şam Büzgülü, Kuş Böreği, Akdimrit, Marzimat, Senirkent Dimriti, Devêgözü, Tilki Kuyruğu, Pembe Gemre, Razaki09, Kalecik Karası, Narince grape varieties had been determined for chlorophyll densities (spad values). Statistic analyses were done and highest values were evaluated from Siyah Gemre variety 45.95, respectively Razaki 09 variety, lowest values were evaluated from Barış variety 32.50 and Hamburg misketi 28.58.

Key words: Chlorophyll, Viticulture, Spad Value, Grape Variety

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