Turkish Journal

of

Agriculture and Forestry



agric@tubitak.gov.tr

Scientific Journals Home Page

Turkish Journal of Agriculture and Forestry

Influence of Rootstocks on Changing the Pattern of Phenolic Compounds in Thompson Seedless Grapes and Its Relationship to the Incidence of Powdery Mildew

> Jogaiah SATISHA, Pooja DOSHI, Pandurang Gundappa ADSULE NRC for Grapes, PB. No. 3, Manjri Farm, Solapur Road, Pune - 412 307, Maharashtra - INDIA

Abstract: The total phenolic content and individual groups of phenols, such as flavonones, flavonoids, and flavon-3-ols, were estimated in the leaves and berries of Thompson Seedless grapes grafted onto different rootstocks and own-rooted vines during 3 stages of berry development. The leaves at all the stages of sampling contained more total phenol and individual phenolic groups than berries. The reduction in phenolic content was gradual in leaves from the first to third stage of sampling, but it was drastic in berries. Thompson Seedless grafted onto Dog ridge, 110 R, and 1103 P rootstocks had the highest phenolic content and individual phenolic groups in the third stage of sampling and the least on Thompson Seedless grafted onto 99 R, St. George rootstocks, and onto own-rooted vines. The number of bunches infested with powdery mildew was the highest on own-rooted vines, and on those grafted onto St. George and 99 R. A significant negative correlation was observed between the number of bunches infected by powdery mildew and phenolic content.

Key Words: Grapes, rootstocks, phenolic compounds, powdery mildew

Turk. J. Agric. For., **32**, (2008), 1-9. Full text: <u>pdf</u> Other articles published in the same issue: <u>Turk. J. Agric. For.,vol.32,iss.1</u>.