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Effects of Mycorrhizal Applications on Vegetative Development of Grape Cuttings

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SUMMARY

Symbiotic microorganisms have been used widely an alternative to solve problems caused by explosive and improper farming practices such as chemical fertilizers, and pesticides in conventional and organic vineyards. These microorganisms are beneficial to plants for mineral nutrition and water uptake, and increase resistance against plant biotic and abiotic stresses. In last decades Symbiotic microorganisms as mychorrhizae have been searching for decreasing plant stresses, and vegetative development, and fruit quality in viticulture. In this study, two mycorrhizal preparations as Mycosym and MycoApply have been tested on young plants of table grape varieties Adana Beyazı, Tilki Kuyruğu, Ekşi Kara and grape rootstock 41 B in greenhouses. Single node cuttings were rooted and developed in pots and Mycosym contain *Glomus intraradices* inoculated in 5 cm depth in root zone as 1 g per pot that has 1.000 spores. MycoApply include *Glomus mossae*, *Glomus intraradices*, *Glomus aggregatum*, *Glomus etunicatum*, and 260.000 spores in gram applied as 10 ml suspension per plants in 5 cm depth of root zone. After MP applications were colonized on young plant roots, and simulated vegetative developments that were differed by varietal differences. Maximum affect was measured on Adana Beyazı that was highest vegetative growth. It is supposed that next vegetation period vegetative development stimulation would be more than the inoculation season.

Keywords: Mycorrhizae applications, grape cuttings, Mycosym, MycoApply