Preharvest Aminoethoxyvinylglycine (AVG) Effects on Ripening, Total Phenolic Concentration and Total Antioxidant Capacity of Green Table Olives

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Abstract

Preharvest ReTain (active ingredient: aminoethoxyvinylglycine) concentrations of 100 and 200 mg L\(^{-1}\) were applied to ‘Konservolia’ olives (*Olea europea* L.) before the green maturity state. Color development was estimated on all fruit harvested 15 days after application. Firmness, total phenolic concentration and total antioxidant capacity (TAC) were measured on green fruit after 1 d and 7 d at 20°C and 90% RH. ReTain prevented development of red coloration. Ethylene production rates were low in fruit of all treatments. ReTain at 200 mg L\(^{-1}\) was the most effective treatment for maintaining firmness. Total phenolic concentration and TAC were lower in ReTain treated fruit than in untreated on day 1. By day 7 total phenolics and TAC had increased in all samples, but TAC in fruit treated with 100 mg L\(^{-1}\) ReTain was still lower than the rest olives. Results showed that 200 mg L\(^{-1}\) ReTain delayed the green maturation and could be used to extend the harvest season for green table olives.