

Title The effect of fruits dip in aminoethoxyvinylglycine (AVG) on storage characteristics of golden delicious and red delicious apples

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Abstract

Golden Delicious and Red Delicious Apple fruits were harvested from Ineshky orchard / Dohuk at the morning of 24 and 27 October in both 2005 and 2006 seasons respectively. Fruit were dipped in Aminovinyloxyglycine (ReTain®) solutions at the concentrations 0,250,500 and 1000 mg.l⁻¹ for one minute and then left 10 be dried, put in perforated polyethylene bags, closed tightly and stored in cool room at 0 ± 1 °C and 85 - 90% relative humidity for 3 or 6 months to study the effect of treatments on fruits storage characteristics. Fruits of Golden Delicious and Red Delicious apples dipped in 500 or 1000 mg. l⁻¹ AVG solutions reserved their firmness and acidity, and the percent of superficial scald incidence significantly decreased as compared with untreated fruits. Prolonging storage period from 3 to 6 months caused a decrease in fruits firmness and acidity and an increase the percent of superficial scald but in a less degree in the treated fruits than non treated ones. Dip treatments in AVG significantly decreased the development of fruit peel colour (Carotene and Anthocyanin) for Golden Delicious and Red Delicious apple, as well as decreased the rate of respiration of fruits after 6 months from storing especially in the case of using 1000 m g. l⁻¹ AVG.