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EFFECTS OF SOME TREATMENTS ON QUALITY CHANGE OF 'GRANNY SMITH' APPLES DURING COLD STORAGE

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Abstract: This research was carried out to determine the effects of lovastatin, 1-MCP and hot water treatments on the fruit quality of 'Granny Smith' apple stored in normal (air) and controlled atmosphere conditions. Fruits were picked at the optimum harvest time and transported to the Postharvest Physiology Laboratory of the Horticulture Department immediately. Lovastatin, 1-MCP, hot water treated and control group fruits were stored at 0°C temperature and 90±5% relative humidity conditions during 6 months in normal (air) (NA) and 10 months in controlled atmosphere (CA) conditions. Weight loss, fruit flesh firmness, soluble solid contents, respiration rate, ethylene production and sensory analyses (external appearance, superficial scald and internal browning) were determined. Superficial scald was detected higher on fruits treated with lovastatin, hot water and control fruits than those treated with 1-MCP and stored in CA. As a result, fruits treated with 1-MCP and stored in CA gave the best results in terms of quality parameters during storage.