

Title Volatile compounds, quality parameters and consumer acceptance of 'Pink Lady®' apples stored in different conditions

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Abstract

Standard quality parameters, consumer acceptance, and volatile compound emission of 'Pink Lady®', apples (*Malus × domestica* Borkh.) were measured at harvest and after 14 and 25 weeks of cold storage in three different atmospheres. After storage, fruit were left to ripen for 1 and 7 days at 20 °C before instrumental and sensory measurements were performed. Data were subjected to principal component analysis (PCA) and partial least square regression (PLSR). PLSR results indicated that the parameters positively influencing acceptability were soluble solid content, titratable acidity, background colour, and emission of hexyl 2-methylbutanoate, hexyl hexanoate, hexyl propanoate, butyl 2-methylbutanoate, 2-methylbutyl acetate and butyl propanoate. Results of sensory analyses revealed the treatments considered in this work could be split into two levels of acceptability.