Abstract:

‘Autumn Seedless’ table grape was harvested in the south east of Spain throughout the normal harvest season in September for two successive years. Clusters were stored in sealed macro-perforated plastic baskets in air atmosphere for up to 51 and 42 days at 0 ºC for the first and second season, respectively. After cold storage a shelf life test of 7 days at 15 ºC was applied. Sugar composition was monitored by high performance liquid chromatography. Mean of total sugar content at harvest was 201 ± 6 g/L and 213 ± 2 g/L in the first and second season, respectively. No significant differences in total sugar content of clusters throughout storage periods for the first year were found. In the second year, a slight decrease in total sugar content between values at harvest and after cold storage (198 ± 8 g/L) and shelf life (195 ± 2 g/L) was found. The glucose:fructose ratio at harvest was 0.98 and 1.05 for berries of the first and second season respectively. In the first year this ratio progressively increased up to 1.03, but in the second season, an increase after cold storage (1.07) was followed by a decrease (1.00) after a shelf life period.