TitlePostharvest storage temperatures impact significantly on apricot fruit qualityAuthorJ. Stanley, R. Marshall, J. Ogwaro, R. Feng, M. Wohlers and A.B. WoolfCitationISHS Acta Horticulturae 880:525-532. 2010.Keywordfirmness; cold storage; postharvest; soluble solids content; juiciness

Abstract

This study investigated the effect of storage temperature (0, 3, and 6°C) and duration (2, 4 and 6 weeks) on fruit quality of 'Clutha Gold', 'Moorpark', 'Genevieve' and 'Southern Cross' apricot cultivars grown in New Zealand. After harvest, fruit were sorted based on size, colour and absence of physical injuries. Fruit samples were destructively assessed (penetrometer firmness, °Brix and pH) pre-storage and post-storage (at 20°C) after shelf life of three days for 2- and 6-week storage regimes and after shelf life of 0, 3 and 6 days following a 4-week storage regime. Each fruit was also tasted and scored for juiciness, mealiness and texture acceptability. The storage temperature at which apricot fruit were held significantly affected fruit quality within the first two weeks of storage. Fruit stored at 0°C showed the best overall quality in terms of fruit firmness, juiciness, lack of mealiness, and texture acceptability. There was significant variation in the effect of temperature on the different cultivars studied. Higher storage temperatures (3 and 6°C) were also more detrimental to fruit eating quality. Juiciness decreased and mealiness increased with longer storage regardless of storage temperature.