Abstract

Transport of Rabbiteye blueberries to overseas export markets is presently done by air. This is very costly and reduces economic returns. Transport by sea costs 3-4 times less, but also represents a substantial increase in transport time from 4 to 15 - 45 days depending on the final destination. This can only be achieved by appropriate control of the cool chain. The aim of this study was to determine if controlled atmosphere (CA) storage (1.5°C, 1.5kPa O_2 15kPa CO_2) could prolong storage compared to regular air (RA) storage at 1.5°C. Quality was evaluated weekly over a period of 4 weeks for RA and 6 weeks for CA storage for two Rabbitcye cultivars (Maru and Centurian). Most quality parameters (compression firmness, touch firmness, weight loss, colour, soluble solid content, titratable acidity, and shrivel) were not significantly different after four weeks of CA storage compared to RA storage, two weeks later changes could be noted although they were not substantial- However, the main problem for blueberry storage is decay and this was significantly improved by CA storage where the increase in decay after 4 weeks as noted for RA storage was not present. Decay was still less after storage in CA for 6 weeks compared to 4 weeks in RA storage. Further research into use of CA storage as a means to enable sea transport of blueberries to major export destinations is warranted.