

Abstract

Myrtus ugni, also known as Chilean guava, is native to Chile where the population has long appreciated the fruit (berry) for its delicious flavour. Tas Myrtus Berries Pty Ltd (TMB) has begun to commercialise *M. ugni* berries (Tazziberry[®]) in Tasmania. However, due to the lack of commercial operating experience in the world, research into storage and transport is critical to advance success of this new berry industry in Australia. In this study, the optimum storage temperature and the relationship between temperature and shelf-life were determined, as well as systems using a range of packaging materials and storage atmospheres to ensure the berry reliably reaches its target markets in peak condition. Factors of quality loss investigated included weight (water) loss, development of rots, and discolouration of the berry skin, and calyx, leaves. Cold storage at 0 °C significantly increased the shelf-life of *M. ugni* berries. Modified atmosphere/high CO₂ using the Controlled Atmosphere Longlife Module (CALM) was the most beneficial treatment to ensure berry quality for the market (berries were of acceptable appearance up to 3 months storage), although treatment with chlorine or berries packed in clam shell punnets with absorbent pads reduced rots. The rate of respiration was also observed to increase with storage temperature, where the relative increase in respiration between 10°C and 20°C was greater than the increase between 0 and 5°C. This information together with data from sensory and nutritional analyses will help to consistently deliver a desired product quality and ensure marketing success of Tazziberry[®] in Australia.