

Title The influence of storage on aroma, soluble solids, acid and colour of sour cherries (*Prunus cerasus* L.) cv. Stevnsbær

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Abstract

The present study involved a laboratory scale experiment where the impact of post-harvest storage on the quality of sour cherries (*Prunus cerasus* L.) cv Stevnsbær was investigated. Cherries were stored for 7 days at temperatures of 2vv°C, 10vv°C, 20vv°C, and 30vv°C, and at 20vv°C in combination with a 20% CO₂ atmosphere. Cherry quality was assessed by analysis of soluble solids, titrateable acids, anthocyanins and aroma compounds. The content of soluble solids of cherries decreased at storage temperatures above 10vv °C. The anthocyanin content of cherries decreased during storage at all temperatures. A decrease, followed by an increase, in titrateable acid was observed for all temperatures except 2vv°C. Aroma components were also affected by storage time and temperature. The level of benzaldehyde decreased during storage at higher temperatures, while those of eugenol and vanillin increased at all temperatures. The levels of "off" odour compounds, like acetic acid and fermentation alcohols, increased at higher temperatures during storage. The CO₂-enriched atmosphere (20% CO₂) did not affect the different quality factors significantly.