

Title Efficacy of controlled atmosphere storage on physiological changes of lime fruit
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Abstract

Due to less supply of lime in off season production causes higher price in market. Controlled atmosphere storage is one of techniques maintain quality and prolong storage life of produce. Effect of controlled atmosphere containing low oxygen and high carbon dioxide concentration were investigated. Lime fruit were stored in air or controlled atmosphere (CA) containing 3% O₂ + 3% CO₂, 5% O₂ + 3% CO₂, 3% O₂ + 5% CO₂, and 5% O₂ + 5% CO₂, respectively. CA storage reduced loss of chlorophyll and change of peel colour (a* and b* values) when compare to fruit stored in air treatment. Whilst, fruit stored in air had higher ethylene production and rate of respiration than those fruit stored in CA conditions. These results suggest that CA storage retained physiological changes of lime fruit better than control treatment.