

Abstract:

Chinese winter jujube fruit is a kind of freshly consumed fruit originated in China. Because of its delicious flavor, tenderness, juiciness, and high nutritional value, it is widely recognized as a promising fruit in the future. Since the Chinese winter jujube fruit normally ripens in early October, it is difficult to maintain fresh storage quality at room temperature. In order to prolong the storage life and to be able to provide the fresh Chinese winter jujube fruit to New Year's Day and Spring Festival, the postharvest physiology and different storage conditions have been studied. The results showed that Chinese winter jujube fruit had large amount of nutrition, high fresh consumption characteristics, but had difficulties in storage. The respiration rate and ethylene production showed no peak during storage, indicating that Chinese winter jujube fruit is non-climacteric fruit. Chinese winter jujube fruit stored at $-2.2 \sim -2.5$ °C, 90% RH, 19.4% O₂, and 0.05% CO₂ in a container sealed with 1 to 2 layers of polyethylene film showed the best results at the end of postharvest storage.