

# Postharvest logistics performance of fresh fig varieties in Turkey

Birgöl Ertan, Hüseyin Şenkayas and Özlem Tuncay

Scientia Horticulturae 257: 108769. (2019)

---

## Abstract

Demand for fresh food is increasing day by day as people want to consume healthy, quality and fresh vegetables and fruits. So, the main mission of supply chains is to deliver secure and fresh food overcoming postharvest losses. Fresh fig is a kind of perishable fruit with is very short durability period. Diversification of fresh fig market and its trade will strengthen the status of fresh fig in domestic and international markets. Post harvest storage and transport (logistics) conditions cause various damage and quality losses in fresh figs that continue to ripen. Therefore, factors such as storage temperature, humidity, transport containers, water losses due to mechanical damage and vibration of vehicles are important. This project was conducted in order to determine the most appropriate fresh fig varieties as an exportation alternative to “Bursa Siyahı” and to demonstrate changes in quality during storage and shelf-life periods after storage. “Siyah Orak”, “Goklop” and “1100” fig varieties at the Fig Research Institution in Aydın were used as materials. During harvest fruit were directly placed into their storage packages (into nespaks) and stored at  $3 \pm 1$  °C for 20 days in cold storage condition. In addition, the samples taken from cold storage were kept for two days at 20 °C to determine their shelf-life periods. During the studies in 2012, 2013 and 2014 the following data was collected: weight loss during storage and shelf-life periods, firmness by texture analysis, total soluble solids, titratable acidity, maturity rate, pH, L, a, and b skin and flesh color values. During the studies on storage and shell-life period, it was shown that the fruit harvested at their coloring stages of 2/3 and 1/3 of hard-ripe fig variety was more durable than other varieties. It was also concluded that since the fruit harvested during the ripening period when 1/3 of their skin get colored are so small, they can be commercialized with different packaging materials.