

The Effect of postharvest application of putrescine and UV-C irradiation on strawberry (*Fragaria × ananasa* cv. Selva) fruit quality

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Abstract

Strawberry fruit due to the soft tissue and high metabolism has a short postharvest life. In this study, the effect of putrescine (1 and 2 mM) and UV-C irradiation at 0.72 KJ/m² on postharvest quality of strawberry fruit cv. 'Selva' was studied during 10 days of storage at 4°C. Fruits treated with both putrescine concentrations had higher firmness, vitamin C, anthocyanin, phenolic content and antioxidants capacity and showed lower weight loss in terms of storage duration. However, UV-C irradiation had no significant effects on most studied parameters, it helped to maintain more anthocyanin content especially at 6-10 days of storage. Among three color spaces, L and hue angle were not affected by applied treatments but Chroma showed higher values in fruits treated with two putrescine concentrations and UV-C irradiation. Generally, putrescine immersion and ultraviolet radiation treatment could effectively maintain the postharvest quality of strawberry fruit.

Keywords: *Strawberry, Putrescine, UV-C Radiation, Fruit Quality*