

Abstract

Hot water and Ultraviolet-C light (254 nm) are proposed as alternative physical techniques for the use of chemicals to reduce fungal decays of eggplants during storage. In order to investigate the effects of combined hot water and UV-C treatments, fruits were dipped into hot water at 40°C for 3 minutes duration and exposed to UV-C dose at 3.6 kJm⁻². Combination treatments were performed in two different ways. Fruits were divided into two groups. First group was dipped into hot water followed by UV-C treatment and second group was exposed to UV-C followed by hot water treatment. After treatments, eggplants were stored at 10°C temperature with 90-95% relative humidity for 20 days. Untreated fruits were used as control. Both combination treatments tested, reduced the percentage of decay. But UV -C followed by hot water treatment was found to be more effective in controlling decay. During storage period, the lowest weight loss was 0.68% at hot water followed by UV-C' treated fruit. Titratable acid content was higher in treated fruits than untreated controls. There was no significant interaction between TSS% and combination treatments observed.