

Abstract

Rapid deterioration is a serious problem in postharvest storage of *Agaricus bisporus* (*A. bisporus*). Hence, measures to improve shelf-life of the mushroom are of great importance. This study analyzed the effect of preharvest treatment of *A. bisporus* with methyl jasmonate (MeJA) on the postharvest storage quality. Appearance and texture characteristics were determined during a 10-day storage period at 4 °C, and the results showed that MeJA improved the appearance of *A. bisporus* by inhibiting browning and color variation. Additionally, weight loss and cellulose content were inhibited in MeJA-treated groups. Consequently, MeJA maintained a dense microstructure and alleviated the decline of fracturability and springiness of the mushroom. Thus, MeJA inhibited deterioration and prolonged postharvest storage period of *A. bisporus* by enhancing appearance and texture characteristics. These results provide important information on improving postharvest quality in the *A. bisporus* cultivation industry.