

# Low temperature conditioning combined with methyl jasmonate can reduce chilling injury in bell pepper

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## Abstract

Bell pepper is a highly perishable vegetable and chilling injury is a principal physiological factor that negatively impacts the postharvest quality of peppers during transportation and storage. This study parsed the effects of low temperature conditioning (LTC) combined with methyl jasmonate (MeJA) on chilling injury during the storage of bell pepper fruit. The results showed that treatments of LTC combined with MeJA effectively maintained quality of bell pepper, suppressed the development of chilling injury index, delayed increase of malondialdehyde (MDA) content, inhibited the decline of chlorophyll and Vitamin C content, enhanced the activities and relative gene expressions of Peroxidase (POD), Catalase (CAT) and Ascorbate Peroxidase (APX). The results obtained point to treatments LTC combined with MeJA can be used as a useful technology for enhancing tolerance of postharvest chilling injury in bell pepper fruit.