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Poliaminas y acondicionamiento térmico reducen daño por frío y afectan actividad de  $\beta$ -  
galactosidasa en calabaza zucchini

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### Abstract

This two-stage study was conducted to assess the effect of prior conditioning on the chilling injury index (CII) and enzymatic activity of B-galactosidase in zucchini fruits in cold storage (2.5 or 10 °C). In the first stage, zucchini fruits were conditioned at 15 °C for 48 h prior to storage at 2.5 °C. In the second stage, the polyamines putrescine (PUT), spermidine (SPD) and spermine (SPM) at concentrations of 0.1, 0.25, 0.5, 1.0, 1.5, 2.0 y 4.0 mM, were applied exogenously on fruits stored at 2.5 °C for 12 days. It was found that conditioning at 15 °C and storage at 10 °C reduced CII by 84 and 40 %, respectively. B-galactosidase activity increased gradually in the course of 12 d in response to all of the treatments, except for a decrease on day four at 10 °C. Polyamine application at all the concentrations decreased the CII, PUT being the most effective, followed by SPM and SPD. Infiltration of polyamines induced a reduction of B-galactosidase activity during 12 days of storage at 2.5 °C, with SPM having the greatest effect. All the polyamines at 4.0 mM caused a CII similar to that of the control.

### Keywords

Cucurbita pepo L., physiological disorders, postharvest technology.

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