

Title Effect of modified atmosphere on the guava cell wall components.
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Abstract

With the objective to increase the storage time, mature guavas (*Psidium guajava* L.) were treated with Benomyl+Tween 80 and wrapped in either sealed (SP) or perforated (PP) ethylene (CF film) absorbing package. Unwrapped fruits (UP) were used as controls. In the storage in environmental conditions (10 days at 20 deg C plus or minus 1 deg C, 70% plus or minus 5% RH), it was found that SP kept the fruits with good quality characteristics until the 10th day, compared with 6 days in the UP and PP treatments. The SP fruits were firmer due to the smallest degree of pectin solubilization and PME activity than those of PP which presented characteristics similar to those of control (texture, soluble pectin, and percentage of pectin solubilization and PME activity). The use of modified atmosphere (SP or PP) did not interfere in PG activity, and in the cell wall (CW), there were larger retention of polyuronides, bound calcium and neutral sugars, standing the SP fruits for the degree of pectin esterification, and higher contents of bound calcium and cellulose. The decrease in the content of polyuronides and their degree of esterification coincided with the increase of the activity of the pectic enzymes. The predominant neutral sugars were xylose, arabinose and galactose.