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TEXTURE MEASUREMENTS OF 'ROCHA' PEAR AFTER CA STORAGE

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Firmness of fruit is an important quality parameter as it may exhibit a substantial change in firmness during the ripening process. The regulation of ripening has been extensively studied. Data reported in literature showed the advantages of the controlled atmosphere (CA) storage in the control of the ripening process of some fruits. Several authors have reported general recommendations for CA composition for storage of pears. This depends on cultivar, maturity, tree vigor and storage delay.

The aim of this work was to evaluate the effect of CA storage on the firmness of the pear (cv. Rocha) after a long-term storage. Four different CA conditions were established. Two atmospheres with 2% O₂ and 0.5% or 1.5% CO₂, and two with 4% O₂ and the same level of CO₂. Pears stored in air (NA) were used as a control. Pears were removed from storage after nine months and evaluated for firmness during a nine-day period of exposure to room temperature (20°C).

After two days of exposure to room temperature, only pears from 4% O₂, plus 1.5% CO₂ were firmer than pears from NA storage. The firmness of samples from all atmosphere composition decreased with the time of exposure to room temperature, specially during the first seven days. However, samples from CA storage presented a tendency to present lower firmness than the ones from NA storage. The CA composition 2% O₂, plus 1.5% CO₂, seemed to be more adequate for a normal ripening of pears after nine months storage.