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Effect of Low-temperature Periods on Fruit Character of 'Le Lectier' Pears during Ripening

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'Le Lectier' pears treated with low-temperature (refrigerated storage) for 30, 60, or 90 days after harvest showed changes in elasticity index, weight, peel color index and soluble solid concentration during ripening. By low-temperature treatment, the fruit did not reach the edible ripeness and metabolic activities such as yellowing of the peel and softening of the

the low-temperature condition at 2–3°C. After low-temperature treatment, the peel color index and soluble solid concentration of the fruit increased, and the elasticity index, flesh firmness and fresh weight of the fruit receiving low-temperature treatment for 10 or 30 days ripened normally. The substance of the fruit developed a melting quality. However, fruit receiving low-temperature treatment for 60 or 90 days rotted from the fruit stalk during ripening. Fruit receiving low-temperature treatment for 60 days softened, but the flesh of the fruit did not reach a melting quality. Therefore, it was suggested that fruit was not able to ripen normally when fruit was stored for 60 days or longer at 2–3°C. In addition, the weight loss correlated with the elasticity index. This finding suggests that the elasticity index is strongly affected by weight loss).

Key Words: [elasticity index](#), [flesh firmness](#), [frequency of second harvest](#), [storeroom](#), [soluble solid concentration](#)

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