

**Title** Quality of cold-stored strawberries as affected by chitosan–oleic acid edible coatings  
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### **Abstract**

Edible coatings based on high molecular weight chitosan combined with oleic acid were used to preserve quality of cold-stored strawberries cv. Camarosa. Physicochemical properties, fungal decay and respiration rates of samples were determined during cold storage. In addition, water vapour barrier properties and the sensory quality of coated samples were analysed. Coatings had no significant effects on acidity, pH and soluble solids contents of strawberries throughout storage. In contrast, coatings slowed down changes in the mechanical properties and slightly modified respiration rates of samples. Addition of oleic acid not only enhanced chitosan antimicrobial activity but also improved water vapour resistance of chitosan-coated samples. Sensory analysis showed that coating application led to a significant decrease in strawberry aroma and flavour, especially when the ratio oleic acid:chitosan was high in the film.