

Title A novel active packaging to maintain quality and increase shelf life and safety of table grapes
Author D. Valero, F. Guillén, D. Martínez-Romero, S. Castillo, P.J. Zapata and M. Serrano
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Abstract

Consumers demand new non-chemical means of preservation of fresh produce. Table grapes are an important fruit typical of the Mediterranean diet which is consumed almost all over the year. However, this commodity is highly perishable due to important quality losses from harvesting to retailing mainly due to mass loss, colour changes, fast softening and ripening. The mass loss affects not only the berry but also the rachis inducing browning and rendering the produce unmarketable. In addition, table grapes are very sensitive to decay during prolonged storage, the most important disease being caused by *Botrytis cinerea*. This work describes the development of innovative active packaging based in the combination of modified atmosphere packaging (MAP) with natural essential oils possessing antimicrobial and antioxidant activity. The use of this active packaging for delay of fruit ripening and extension of shelf life based on safety and preservation of sensory and functional properties is presented.