Title (6)	:	**Thymol-Loaded Polymeric Nanoparticles Improve the Postharvest Microbiological Safety of Blueberries**
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Abstract	:	Research background. The presence of Yersinia enterocolitica on raw food products raises the concern of yersiniosis as most of the berries are consumed raw. This is a challenging issue from the food safety aspect since it could in-crease the occurrence of foodborne diseases among humans. Thus, it is crucial to implement an effective sanitation before the packaging. Experimental approach. This study aims to synthesize and characterize thymol-loaded polyvinyl alcohol (Thy/PVA) nanoparticles as a sanitizer for post-harvest treatment of blueberries. Thy/PVA nanoparticles were characterized by spectroscopic and microscopic approaches, prior to the analyses of antimi-crobial properties. Results and conclusions. The diameter size of the nanoparticles was on av-erage 84.7 nm, with a surface charge of −11.73 mV. Based on Fourier transform infrared (FTIR) measurement, the Thy/PVA nanoparticles notably shifted to the frequency of 3275.70, 2869.66, 1651.02 and 1090.52 cm–1. A rapid burst was observed in the first hour of release study, and 74.9 % thymol was released from the PVA nanoparticles. The largest inhibition zone was displayed by methicillin-resistant Staphylococcus aureus (MRSA), followed by Y. enterocolitica and Salmonella typhi. However, amongst these bacteria, the inhibition and killing of Y. enterocolitica required a lower concentration of Thy/PVA nanoparticles. The treatment successfully reduced the bacterial load of Y. enterocolitica on blueberries by 100 %. Novelty and scientific contribution. Thymol is a plant-based chemical with-out reported adverse effects to humans. In this study, by using the nanotech-nology..see more.