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(57) Abstract :  
 Food waste amounts to roughly one-third of its total pro- duction every year. There is an unprecedented demand to improve the long-term storage of food products while preserving quality and safety in every stage of its processing, from postharvesting to pre-consumption. Different technologies, such as total viable count (TVC), metal-oxide-semiconductor sensors, fluorescence spectroscopy, dye, and polymer-based colorimetric sensors as well as radio-frequency identification (RFID), are currently applied for monitoring food products. This article provides an overview of current developments in near-field and ultrahigh-frequency (UHF) wireless passive sensors for monitoring food quality indices and food spoilage indicators. Solutions based on coupled-coil resonator and UHF chipless RFID sensors with application to bacterial-count detection, volatile gas concentration, humidity, and pH monitoring are highlighted.

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