INTELLIGENT LOGISTICS MONITORING SYSTEM FOR MANGO

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The development of postharvest handling technology and the massive improvement of information and communication technology (ICT) recently allowed the development of intelligent transportation technology. The availability of these technologies accelerates the demand for food worldwide and increases global food logistics activity in the last decades. The globalized food trade, including perishable food commodities such as fruit, involves long supply chains and requires an extended shelf-life of the commodities and an adequate logistics facility. Nowadays, logistics monitoring is not limited to monitoring transportation and storage environment conditions but has been improved to have quality prediction and controlling capability. This paper presents the implementation of the Internet of Things and machine learning in the logistics of mango, especially transportation and warehousing. The intelligent quality monitoring system has been developed and applied for mangoes. The critical factors to a reliable, intelligent logistics monitoring system are the appropriate model of quality changes and the accuracy of machine learning. The determination of critical quality parameters, suitable sensors, and the design of the device and installation influenced the successful modelling and implementation of the system. With efficient design and high model accuracy, supply chain actors can communicate and access real-time product quality information from anywhere at any time.

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