

# The uses of near infra-red spectroscopy in postharvest decision support: a review

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## Abstract

This review considers applications of near infrared spectroscopy (NIRS) in context of postharvest decision support, as opposed to an assessment of NIRS technology, *per se*. Two ‘generations’ of use are discussed, the first involving the direct assessment of chemical or physical attributes related to postharvest quality at the time of assessment, and the second involving the forward prediction of a postharvest attribute of the fruit or vegetable. A review of statistical functions relevant to sorting is also presented, with consideration given to the measurement error inherent in an estimate based on near infrared spectroscopy and the use of Receiver Operating Characteristic and similar parameters. Case studies involving implementation of NIRS into various aspects of postharvest value chains are presented.