Abstract

This study is carried out in the context of a NIR industrial application developed for onion breeding on the base of soluble solid content. An online interchange device has been developed equipped with algorithms to detect abnormal spectral response. A devoted experimental designed is used to enhance temperature variability in the product, and non contact IR thermometer is used to quantify temperature changes online. Results indicate that available MLR model for soluble solid prediction is robust against temperature changes though its precision is limited. Non supervised analysis of spectra and time charts indicate temperature effects in several spectral components but other relevant sources of variation make unfeasible to determine it properly.