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Classification of High Acid Satsuma Mandarins by N Transmittance Spectroscopy

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On-line measurement of sugar content in satsuma mandarins was al NIR transmittance spectroscopy. The feasibility of simultaneous me content was investigated. The citric acid content determined by titr the second derivative absorption values autoscaled in the 710-930 analyzed by PLS1 using Unscrambler software. The spectra of pee an NIR Systems Model 6250 were analyzed, and the model comp indicated the highest accuracy; R was 0.93, the mean residual (Bia standard error of prediction (SEP) was 0.146%. The citric acid cor

mandarins was regressed by the same method using an on-line inst
composed of 5 factors calibrated from 689 samples showed the hi
Bias=0.024% and SEP=0.147% as a prediction result from 548 sa
to classify nondestructively the high acid fruits using near infrared (
spectroscopy at about 20% error rate.

Keywords: satsuma mandarin, citric acid, NIR, transmittance spe

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