

Abstract:

Fruit quality at harvest is usually determined on the external appearance while internal fruit characteristics, which may better meet consumer expectations, are traditionally determined in a destructive manner on a given number of fruits. In the last few years, non-destructive methods using near-infrared spectroscopy (NIRS) to evaluate parameters for estimating maturity were applied to different fruits species so as to check ripening status directly on the tree or to grade fruits in the packing house. The present study reports the results recorded with two NIRS instruments, one portable and one stationary, used to estimate soluble solids content, flesh firmness, dry matter content and total titratable acidity in peach and nectarine fruits. The prediction of the considered quality parameters was similar to that based on data collected destructively, which were recorded as reference measures in both field and packing house conditions. The results showing the best fit were soluble solids.