

Title White asparagus harvest date discrimination using NIRs technology
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Abstract

Asparagus is still an important resource for mid-size and small farms. It has been traditionally believed that factors such as the asparagus harvesting date have an influence on its quality. This research sought to identify the harvesting dates of different fruits by using Near Infrared Spectroscopy (NIRS) technology as quality indicators and the best zone a long of the asparagus to acquire the spectrum. All the asparagus tested came from the same manufacturer but had been canned on three different dates, giving a total of nine lots. There were one hundred asparagus per lot and the experiment data were taken from three different parts (tip, middle, and base) of each spear. Reflectance spectrum in the near infrared between 800–1700 nm was determined. Differences NIRS among the asparagus harvested on different dates were found. NIRS technology was able to classify the asparagus correctly in terms of harvest dates (71% well classified). The base of the asparagus turned out to be the best part to use in order to establish the harvest date.