

### Abstract:

The objectives of the project were to test rapid methods to objectively measure the sensory quality of commercial strawberries and to define a model for their quality assessment.

Variations of the sensory quality caused by different cultivars were present at the 10 consumer tests from 1998 to 2002. The relationship between consumer's appreciation of these cultivars and the laboratory measurements proved that the sensory quality of strawberries is rapidly and objectively measurable by analysing the soluble solid content (°Brix) of the fruits. The analysis of the total volatile compounds of the fruits was significantly related to the consumers' appreciation for merely a few tests. Further investigations are required to verify this relationship. However, the measurements of titrable acidity and firmness as well as the °Brix/acidity ratio were not efficient to reflect the consumers' opinion.

The seven consumer tests with categorisation from 1999 to 2002 showed different regression lines between the sensory quality of strawberries and their soluble solid content (°Brix). This indicated that it tends to be difficult to set the same °Brix as a quality attribute to obtain consumer satisfaction every year or every season of the year. Nevertheless, a provisional model for the assessment of sensory quality of intact, undamaged and not overripe strawberries relative to their soluble solid content (°Brix) was suggested.