

# Measurement of saliva volume in the mouth of members of a trained sensory panel using a beetroot (*Beta vulgaris*) extract

Müller, Katrina

Figueroa, Cristian

Martínez, Constanza

Medel, Marcela

Obreque, Elias

Peña-Neira, Alvaro

Morales-Bozo, Irene

Toledo, Héctor

López-Solis, Remigio O.

The volume of saliva in the mouth of sensory panelists was measured by a dilution assay using a freshly prepared beetroot extract as probe solution. An aliquot of the extract absorbing linearly at 531-nm (probe) was placed in the mouth, mixed with saliva and returned to a clean container within a period of time shorter than the one spanning a single swallowing cycle. Beetroot pigments were neither partitioned into sub-fractions of saliva nor affected spectroscopically by their mixing with saliva. Three-milliliter was the minimum volume of probe per assay for a determination to be reliable. Observed volumes of saliva in the mouth of 13 panelists were distributed over the range 230-1310  $\mu$ L with a median of 704  $\mu$ L and a mean and standard deviation of  $696 \pm 312 \mu$ L. All but one of the subjects displayed salivary volumes within 1.41 standard deviations from the mean. Duplicate determinations per subject showed a median deviation of 13.5%. The procedure yielded highly repeatable and reproduci