SENSORY EVALUATION OF COMMERCIAL CHEWING GUMS AND THE RELATIONS BETWEEN THE CONSUMER SENSORY ACCEPTANCE WITH THE TIME-INTENSITY PARAMETERS OF SWEETNESS PERCEPTIONS.

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Chewing gums have an important role in diet/light products sector, and in 2002 represented approximately 20% of this segment in the Brazilian market. The aim of this work was to evaluate the consumer sensory acceptance and the time-intensity parameters of sweetness perceptions in 6 samples of commercial chewing gums (5 with aspartame, acesulfame-k and sucralose and 1 with sugar, acesulfame-k and sucralose). The acceptance test had 113 panellists that evaluated appearance, aroma, flavor, texture and overall acceptability by a hedonic scale unstructured. The results were analyzed by ANOVA, Tukey’s test and internal preference map. Eight panellists were selected to time-intensity test and analyzed maximum intensity (Imax), time to maximum intensity (Tmax), total time (Ttot) and area under the curve (Area). The results were analyzed using Tukey’s mean and Principal Component Analysis (PCA). By internal preference map, it was observed that samples 1, 4 and 5 (mint, menthol herbs and peppermint) were more accepted that samples 2, 3 and 6 (fresh mint, peppermint with sugar and strong mint). Sample 3 (with sugar) had the lowest average for all the attributes. Comparing to time-intensity parameters, sample 3 showed the lowest values for Imax, Ttot and Area. The Ttot of sweetness perceptions ranged between 3.8 and 4.9 minutes among the samples. There was no significant difference for Tmax. Analyzing the graph of PCA, it was found that sample with sugar was not characterized by any of the attributes studied, while all other samples were characterized by at least one of the attributes.