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DIFFERENCES IN DYNAMIC SENSORY PERCEPTION BETWEEN COMMERCIAL CHOCOLATE SPREADS

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Sensory perception is a dynamic process which requires application of appropriate methodology in order to best describe what is perceived by the human senses. Temporal Dominance of Sensation (TDS) is a sensory method that can be used for describing the perception of sensory attributes over time after ingesting a food. This approach is aimed at repeatedly recording the dominant sensations during the tasting period and enables characterization of an entire profile of complex food in a short time. The presented study is an exploratory assessment used to identify similarities and differences among the tested products and to highlight their characteristics in terms of dominant attributes over time. Six commercially available chocolate spreads of different composition were evaluated by TDS by trained sensory panelists (n=12, eight female and four male, 25–45 years old). The assessors were presented with a list of sensory attributes (sweet, bitter, salty, cocoa, hazelnut, milky, vanilla, creamy, grainy, and sticky) previously selected within the Free Choice Profiling sessions, and were asked to choose any attribute that they perceive as dominant. The obtained TDS curves showed different complexity of products sensory profiles. Sweet attribute was the first significant dominant attribute detected in all evaluated samples except in sample S3, for which grainy, creamy and sticky were more dominant sensations than sweetness. Bitterness was recognized as dominant sensation only in two samples (S3 and S5) in the later phases of ingestion, practically in these samples bitterness was experienced as an aftertaste. These two samples are also specific because only in these two samples cocoa attribute was not recognized as significantly dominant. The presented study showed that TDS was useful for comparing products based on their TDS curves. Moreover, it enables highlighting the attributes that contribute the most toward product discrimination and assessment of the influence of time.

Keywords: Dominant sensations, Sensory analysis, Chocolate, Sensory perception

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