FORMULATION OF THE COMPOSITION FROM SCALDED DOUGH WITH NATURAL SWEETENER

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Abstract:
One of the most significant challenges faced by producers of pastry products today is the reduction of sugar in manufacturing recipes. The research aims to incorporate a natural sweetener into the composition of a product based on parboiled dough with filling and identify the optimal processing factors and conditions for the dough and filling. Physico-chemical methods were applied to assess the quality of the flour (moisture content, acidity, ash, wet and dry gluten quantity, hydration capacity, extensibility, deformation, and expansion gluten), as well as cream viscosity and the texture of the semifinished used in the production of éclair with natural sweetener. The viscosity of the cream boiled was observed to remain stable within a temperature range of 5 to 15°C at speeds of 110-180 RPM, while the viscosity of cream with added stevia increased with the rising speed of the DV-III Ultra rotary rheometer. Textural properties of the scalded dough, filling, and finished product were evaluated using the STABLE MICRO Systems TA texture analyzer. The addition of stevia to the éclair recipe resulted in improved cohesiveness, gumminess, and chewiness due to the increased hardness of the baked product. Results indicated instability of the cream with stevia addition and stability of the sample with stevia and gelatin, confirmed through sensory analysis. Additionally, has been observed a nonsignificant influence on the organoleptic characteristics of the éclair with filling, identifying a less sweet taste with a slightly bitter aftertaste inherent to this sweetener. As a result, we conclude that texture plays a crucial role in the perception of sweetness, with firmer products being considered less sweet.

Key words: *éclair, pastry, rheology, stevia, sweetener, texture*