



CAROB SYRUP AND CAROB FLOUR (*CERATONIA SILIQUA* L.) AS FUNCTIONAL INGREDIENTS IN SPONGE CAKES

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ABSTRACT

The aim of this study was to evaluate the physicochemical and sensory characteristics of sponge cakes enriched with carob flour and carob syrup as functional ingredients and partial substitutes for wheat flour and sugar. Five formulations were prepared: a control cake, sponge cake with 25% carob flour, sponge cake with 50% carob flour, sponge cake with 25% carob syrup and sponge cake with 50% carob syrup. The replacement of wheat flour with carob flour resulted in a higher level of dietary fiber (2.45 → 18.28 g/100 g dry weight), protein (8.44 → 23.93 g/100 g dry weight) and carbohydrate content (65.40±5.20 → 86.10±2.70 g/100 g dry weight). The substitution of sugar with carob syrup increased the level of protein content (8.44 → 12.57g/100 g dry weight). Sensory evaluation of shape, color, cell size and uniformity, odor, sweetness, aftertaste, crumb tenderness was also performed.

Keywords:

Carob flour;

Carob syrup;

Descriptive sensory analysis;

Sponge cake.