EVALUATION TECHNOLOGICAL CHARACTERISTICS OF MASS FOOD ENRICHED WITH WHEY PROTEIN ISOLATED

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Whey offers many advantages, besides improve the nutritional value; texture, stability and emulsifying capacity can also enhance the color and flavor food. This study aim was to use whey protein isolate (WPI) as additional nutrient, as well as evaluating the technological properties of the dough. Formulations were tested with addition of 0, 5, 10, 15 and 20% of the WPI. For this, dry matter was added to trough, mixed and then water was added. The mass was homogenized for 15 minutes, extruded at N° 8 and dried in temperature of 27°C and 57% relative humidity for 48 hours. The results were subjected to variance and regression analysis (p <0.05). A linear increase was observed in the cooking time of the spaghetti. Treatment with 10% WPI had the best results for the parameter increase in mass, with weight loss from such concentration. The values found for solids loss in the cooking water did not fit to used mathematical model and the results were: 0.62 g (0%) 0.77 g (5%) 0.71 g (10%) 0.58 g (15%) and 0.69 g (20%). A luminosity L obtained a linear decrease of clarity while added WPS, the chroma b* increased of up to 15% percentage, observing decrease from this value. The chroma a* decreased linearly. The masses moisture remained around 10%, except for the pasta with the addition 10% of WPI which obtained 11% humidity. The addition of WPI addition didn’t improving the product technological properties, only increased to approximately 3.9g, 7.8g, 11.7g and 15.6g, respectively.

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