



INFLUENCE OF SORGHUM VARIETY ON THE COOKING PROPERTIES OF FRESH PASTA

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COMO CITAR ESSE TRABALHO?

Resumo

Sorghum is a cereal present in the human diet in several countries. Its high starch content and the lack of gluten-forming proteins make it an interesting ingredient to produce gluten-free pasta. In this study, two formulations of fresh pasta were developed using sorghum flour, and the cooking properties were evaluated. Two varieties of sorghum, donated by Embrapa Milho e Sorgo, were used: CMSXS 3019, which contains tannins, identified as red flour (RF); and BR 501, which is tannin-free, identified as white flour (WF). Pastas were prepared according to the following formulation: pre-gelatinized starch (30 g); powdered egg (9 g); egg albumin (11 g); ora-pro-nóbis flour (2.5 g); water (60 mL); RF or WF (50 g). The ingredients were mixed, and the dough was kneaded by hand. A pasta roller and cutter equipment was used to obtain fettuccine-shaped pasta. The optimum cooking time (OCT) was determined when the samples were highly flexible, and the center was soft. The cooking yield (CY) was calculated as the ratio of the pasta weight after and before cooking. Cooking loss (CL) was determined from the cooking water, which was dried in an oven at 105°C until constant weight. CL was calculated as the percentage of the mass of the residue in the cooking water relative to the mass of the pasta before cooking. The results obtained for the two pastas were: 10 min (WF) and 12 min (RF) for OCT; 338% (WF) and 197% (RF) for CY; 9% (WF) and 13% (RF) for CL. The differences observed in the cooking properties suggest the influence of the sorghum variety on the pasta structure. The formulation proposed resulted in pastas with acceptable OCT and CL, but CY for WF pasta was very high. RF was more suitable than WF to produce gluten-free pasta based on sorghum flour.



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Eixo Temático

- Formulação e Processamento de Alimentos (FP)

Palavras-chave

gluten-free; cooking yield; cooking loss