APPLICATION OF POTATO RESIDUAL PULP IN FRIED SNACKS

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During processing of potato chip, in the washing step of the tubers after the cutting and stripping, occurs generation of potato residual pulp. This study developed fried snacks with partial replacement of wheat flour by dried potato residual pulp in order to verify their potential use by the food industry. Samples of residual water from potato washing were collected during 1h, decanted and dried at 55°C until moisture 14g.100⁻¹. Fried snacks were formulated with 10, 20 and 50% of wheat flour substitutions by dried potato residual pulp and the control (without the waste). A completely randomized design (four treatments and five repetitions) were used. The snack processing was performed in the wheat snacks production line of a Brazilian company. The dough preparing steps consisted of 30min of fermentation, rolling, cutting, 4min of fermentation, 2min of frying at 180°C, flavoring and packaging. Total coliforms and at 45°C, Salmonella and Bacillus cereus were investigated in dry waste and snacks, as well as color, specific volume, centesimal composition and triangular test of difference. The samples showed no microbiological risk according Brazilian legislation. There were no sensory differences between control and treatment with 10% and 50% of substitution. The snack control fat content was 35.3g.100g⁻¹ while in the snack with 50% replacement was 24.84g.100g⁻¹. The use of the dry residue in fried snack decreased the oil absorption of the product in 30%, probably due to the higher amylose content. The snacks with 50% of substitution were healthier than controls, enabling its application in the food industry.