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Quality characteristics of underutilized, nonconventional *Amorphophallus paeoniifolius* flour and its value addition

A. paeoniifolius commonly known as elephant foot yam is an underutilized, highly potential tropical tuber crop contains good source of protein as well as starch. The purpose of this study was to isolate and evaluate the physiochemical properties of flour and value addition of floor by different product formation like starch, Resistant starch and bread. The proximate composition of this composite flour along with the sensory evaluation, quality attributes, organoleptic properties of the baked bread was done. Nutritional analysis revealed that the flour is fat and cholesterol free, high in fibre and may be suitable for celiac disease patients. Proximate composition of flour had 4.72 % moisture content, 4.0 % Total ash and 2.0 % acid insoluble ash. Dough raising capability in the presence of yeast was comparable to the control flour. Bread had 2.49 g /100 g total dietary fibre and 1158.42 mg/100 g of calcium content. It was also shelf stable for 6 days as the mould count was found to be less than 10 cfu/g. starch from Elephant foot yam. Establishing the quality characteristics of shelf-stable flour and starch from A. paeoniifolius will facilitate various industrial applications of the crop. These results indicate that the flour, starch and other processed products from A. paeoniifolius will be useful in selecting this underutilized crop for future applications and various possible uses for development of new acceptable food products and enhance its commercial potential.



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