

Development of High Fiber Biscuit with Bamboo Shoot Powder

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Abstract : Bamboo shoots are the immature and edible culms from bamboos which contains high amount of dietary fibers. However, in spite of these functional properties of bamboo shoots it is still underutilized. Objectives: To develop bamboo shoot powder and incorporate it to biscuits as a source of dietary fiber and antioxidant. Materials and Methods: Bamboo shoot powder (BSP) was freeze-drying and grind and was incorporated to biscuits in 20% concentration. BSP and biscuits with BSP were analyzed for its proximate composition, dietary fiber, phytonutrients and antioxidant capacity. Results: BSP has 13.1 % moisture, 18.8% protein and 8% ash, 2.4g/100g total fat and 57.7% carbohydrate. BSP and biscuits with 20% BSP were good sources of dietary fiber containing 27.8g/100g and 7.1 g/100g, respectively. BSP is high in phytonutrient contents in terms of total polyphenols (1052mg gallic/100 g) and flavonoids (4046mg catechin/100g). Biscuits with BSP contained higher source of phytonutrients and antioxidant capacity as compared to biscuits without BSP. Sensory evaluation revealed that biscuits with BSP were more acceptable than biscuits without BSP. Conclusion: Bamboo shoots may be used as a potential functional ingredient in food products for broader application.

Keywords : bamboo shoots, phytonutrients, fiber, biscuit

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