Development of Low Glycemic Index Noodles by Incorporating Milled by-products of Bengal gRam and Rice

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ABSTRACT

Agro-industrial waste is often utilized as feed or as fertilizers on farms. In the food industry the recovery and modification of the by-products is becoming increasingly important as they are considered as a promising source of functional ingredients. Hence an attempt was made to develop legume and cereal by-products based value added low glycemic index noodles. Among the developed by-product incorporated noodles namely Type-I (bengal gram seed coat+broken rice) and Type-II (bengal gram brokens+broken rice) scored high scores in terms of organoleptic acceptability. The best accepted variation of control, bengal gram seed coat, bengal gram brokens alone and in combination with broken rice were evaluated for its nutrient composition and glycemic index. The findings indicated significant increase in total, soluble and insoluble dietary fibre content and decrease in starch and sugar content in by-products supplemented noodles. The glycemic index of Type-I noodles (56.13) and Type-II noodles (45.78) were significantly less than control noodles (66.43). Thus, inclusion of legume and cereal by-products, as an ingredient in noodles, evidently provide a food with low glycemic response for the consumers use.

Keywords: Bengal gram and rice by-products. Noodles. Nutritional composition. Glycemic response