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Nutritional quality of value added papad from amylase rich flour of fieldpea

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A new dimension in the management of protein energy malnutrition is amylase rich foods. The present study was carried out to develop *papad* using amylase rich fieldpea and to study the effect of processing on nutritional quality by analysing proximate nutrients, total minerals, total sugars, antinutrients and in vitro protein and in vitro starch digestibility using standard methods. All the values are average triplicate values. The preparation of amylase rich flour from fieldpea was carried out after soaking, germination, drying, dehulling and finally grinding it to fine powder. *Papad* was prepared using roasting processing treatment. Moisture content of fieldpea *papad* (8.10%) was significantly ($P<0.05$) lower than the unprocessed mixture (10.01%). Results indicated that there were non-significant differences in crude protein, crude fat and total ash content of unprocessed mixture as well as processed fieldpea *papad*. The crude fibre content of unprocessed (raw) mixture was 4.14% whereas processed *papad* contain 3.4% crude fibre. The carbohydrate content of unprocessed and processed *papad* differed significantly ($P<0.05$). In unprocessed mixture and processed *papad* 125.64 and 114.39 mg/100g of Ca content was present respectively. Processing showed significant ($P<0.05$) effect on iron content of *papad*. In the unprocessed mixture 3.41 mg/100g Zn was present while after processing 3.28 mg/100g Zn was present. Total soluble sugar of fieldpea *papad* (6.87%) differed significantly ($P<0.05$) from its unprocessed mixture (6.03%). The processing treatment significantly ($P<0.05$) reduced the level of phytic acid, polyphenols and Trypsin inhibitor activity and improved the in vitro protein digestibility by 87.18 percent and in vitro starch digestibility by 18.92 percent. Thus fieldpea *papad* can be easily used as a healthy snack. Also because of the low cost it could be easily incorporated in the daily diet.

Biography

Prabhjot Kaur Sabharwal has graduated her Master Course at the age of 23 years from Central Food Technology Research Institute (C.F.T.R.I), University of Mysore. She has done her research work in extraction of Nutraceuticals and antioxidants from oilseeds and nuts. She is working as Assistant Professor in the department of Food Technology with Bhaskaracharya College of Applied Sciences (University of Delhi). Her area of specialization includes functional foods, nutraceuticals and new product development. She is taking AFS (Advance Food sciences), PFS (Principle of Food Sciences) and IFT (Introduction to Food Technology) theory and practical of the graduate students.

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