



Sensory and nutritional evaluation of value added products using potato flour for nutritional and health benefits

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ABSTRACT : Protein energy malnutrition continues to be a major health burden in developing countries and the most important risk factor for illnesses and death especially among young children. Increasing potato production with inadequate, expensive and unevenly distributed refrigerated storage facilities in the country has resulted in frequent gluts in the market causing economic loss to the farmers and wastage of precious foods. Keeping in mind the best utilization of potatoes, flour was prepared from variety Kufri Pukhraj by washing, peeling, slicing, blanching, dipping in 10 per cent salt solution and then in 0.05 per cent potassium metabisulphite, tray dried and ground to fine powder. It was used for preparing value added products like *burfi*, *mathi*, *seviyan*, *panjiri* and *halwa* and was organoleptically evaluated using nine point hedonic rating scale. Accepted level of potato flour in different products like *burfi* was 20 per cent, *mathi* 25 per cent, *seviyan* 30 per cent, *panjiri* 40 per cent and *halwa* 50 per cent. Overall, acceptability scores of the products was 8.38 in *burfi*, 8.08 in *mathi*, 8.36 in *seviyan*, 8.2 in *panjiri* and 8.04 in *halwa*. Nutritional evaluation of the developed products was also done by using standard methods. Products were found highly nutritious and these can be easily supplemented to eradicate malnutrition among the children. *Burfi* provides 13.88g protein, 4.56mg iron and 48.67mg calcium. *Mathi* provides protein 9.20g, iron 1.75mg and 17.46mg calcium /100g of the product. *Seviyan* provides 11.23g protein, 4.96mg iron and 43.96 mg calcium. *Panjiri* provides protein 13.16g, iron 3.26mg, calcium 29.38mg. *Halwa* provides protein 11.51g, iron 4.99mg and calcium 34.94mg /100g of the product. Microbial testing of potato flour revealed that the potato flour can be kept safely in polyethylene bags for three months without any spoilage. Highly acceptable products were popularized among the self help groups by giving them lectures and demonstrations for nutritional and health benefits of children.

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