

Development and Organoleptic Evaluation of Food Preparations Incorporated with Selected Antidiabetic Medicinal Plants

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ABSTRACT Worldwide, the prevalence of diabetes is projected to rise from 171 million in 2000 to 366 million in 2030. Several medicinal plants possess anti-diabetic properties, and to avail their hypoglycemic effect, these are used as medicine by diabetics. Medicinal plants have rarely been incorporated in food preparations. Keeping this in view, Antidiabetic Polyherbal Mixture (ADPHM) was prepared by using three medicinal plants with hypoglycemic properties, namely, fenugreek seeds, bitter gourd and *gudmar* leaves. Commonly consumed salty food preparations for diabetic patients were developed by incorporating ADPHM at different levels (1 to 7%). All the developed food preparations were organoleptically evaluated by a panel of twelve judges using nine point Hedonic scale. In all the developed food preparations, maximum (7%) level of incorporation was in *namakpara* and minimum (1%) in *idli* and vegetable soup. Amongst the developed ADPHM incorporated food preparations, the mean scores for overall acceptability were highest for *idli* (8.20 ± 0.90) and minimum for vegetable soup (5.83 ± 1.13). Significant difference ($p \leq 0.05$) appeared in scores for flavor of *idli* and *missi roti*, whereas in texture score of *poha*, within different level of incorporation of ADPHM. Significant difference ($p \leq 0.05$) was found in score for overall acceptability within different level of incorporation of ADPHM in *idli*, *poha*, *missi roti*, *dhokla* and biscuits. All the developed ADPHM incorporated food preparations contained appreciable amount of energy (100.48 Kcal to 294.87 Kcal/serving), protein (2.60 g to 12.65 g/serving), carbohydrate (13.69 g to 54.66 g/serving) and fibre (0.14 to 2.25 g/ serving).