

Glycemic response of QPM based extruded nutri-rich snack product

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Glycemic response of the selected Quality Protein Maize based nutri rich product was determined. The selected product was an extruded ready to eat snack product which was developed and standardized in the Lab of College of Dairy and Food Science Technology, Udaipur for its processing parameters and acceptability scores. Moisture, Protein, Fat, Carbohydrate, Ash and Fibre content of the product were 6.05 g, 11.24 g, 6.71 g, 63.81 g, 6.48 g and 5.71 g per 100 g, respectively. An interview schedule was developed to collect the information on general profile, health habits and food habits. Results revealed that of the total subjects 76.66 per cent were vegetarian 23.33 per cent were ovo- vegetarian and none of them were non- vegetarians. Out of the selected subjects 23.33 per cent consumed four meals, 66.66 per cent consumed three meals daily, and 10 per cent consumed two meals par day. About 56 per cent subjects consumed snacks in between the meals. The commonly consumed snacks included biscuits, fruits, wafers, sprouts, samosa etc and 43.33 per cent skipped one or two meals in a day. The dietary modification was made by 73.33 per cent subjects whereas 26.66 per cent did not modify their diet. Anthropometric measurements showed that the mean weight of the subject was 57.17kg, whereas mean height was 157cm. The mean of waist and hip circumference of the subjects were 82.5cm, 103.83cm, respectively. Body mass index and waist hip ratio were determined. The mean BMI was 23.11 kg m² whereas mean WHR was 0.79. The mean systolic blood pressure was 108.33 mm Hg whereas mean diastolic blood pressure was 71.13mm Hg. Glucose Tolerance Test was conducted for the glucose and test recipe at fasting (0), 30, 60, 90 and 120 hours after feeding the test recipe to determine glycemic index. It was found that glucose response of the subjects reached its peak at half an hour whereas for the test recipe it reached at one an hour for majority of the subjects which indicates delay in absorption of test recipe. Glycemic index calculated from Area Under Curve for the test recipe was 48.10 which is low when compared with classification suggested by Monro *et al.* (2008), which is low suggesting the positive effect of test recipe in the management of diabetes.

Key Words : QPM, Pearl millet, Morigna leaf powder, Glycemic index, Area under curve, Insulin

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