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Proximate Composition, Available Carbohydrates, Dietary Fibre and Anti Nutritional Factors of Selected Traditional Medicinal Plants

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ABSTRACT Three traditional medicinal plants known for their hypoglycemic action namely bittergourd, fenugreek seeds and jambu seeds were analysed for proximate composition, available carbohydrates, dietary fibres and antinutritional factors. Protein, fat, ash, crude fibre, carbohydrate and energy content of these medicinal plants ranged from 4.16 to 25.80, 0.49 to 6.53, 2.16 to 9.89, 1.28 to 10.92, 58.13 to 90.85 percent and 319.11 to 394.46 kcal respectively. Total soluble sugars, reducing sugars, non-reducing sugars and starch content varied from 2.03 to 11.76, 0.78 to 4.43, 1.03 to 8.0 and 29.20 percent respectively. Dietary fibre constituents like NDF, ADF, hemicellulose, cellulose, lignin, pectin, total dietary fibre varied from 21.90 to 39.66, 2.35 to 13.46, 8.44 to 34.75, 1.46 to 8.23, 0.38 to 5.18, 0.36 to 2.95, 22.4 to 40.38 percent respectively. Phytic acid, phytin phosphorus, polyphenol and saponin content of these three medicinal plants varied from 12.90 to 549, 3.63 to 154.7, 103.8 to 361.40, 214.53 to 1646.58 percent respectively. It was found that these plants are good source of protein, fat, minerals, crude fibre and energy. They are rich source of available carbohydrates and dietary fibre. They also contain anti-nutrient content which help in controlling blood sugar. Thus, it was concluded that these hypoglycemic traditional medicinal plants provide various nutrients which are not provided by allopathic medicine and these plants have no side effects. So, the diabetic patients should be encouraged to include these medicinal plants in their daily diet to control blood sugar level.