
Abstract

Legumes, best known as a poor man's meat, have not been accorded the place they deserve in the world dietaries. They supply protein, complex carbohydrate, fiber and essential vitamin and mineral to the diet and are low in fat, sodium and zero cholesterol. They have been identified as 'low glycemic index foods' prove valuable in the dietary management of diabetes mellitus. Further: the legumes have high satiety values and they facilitate the regulation of food intake. Their other health benefits, as hypolipidemic and oxidative stress mitigating agents, are no less than the proverbial icing on the cake. Regular consumption of legumes may have important protective effects for risk of cardiovascular diseases. Despite having diverse social and culture milieu, most Indian people have no barriers to partaking legumes as a source of protein, vitamins and minerals in their diet.

*The present study was undertaken to evaluate the effect of different processing methods on proximate, carbohydrate, mineral, vitamin, antinutrient and antioxidants content and some enzyme activities of this non conventional legume; horse gram (*Macrotyloma uniflorum*). The endeavor has been specifically aimed at unveiling the nourishing and nutraceutical potential of horse gram and then, as a follow up step, developing food products with horse gram flour as one of the active ingredients. Three types of horse gram flours (raw, roasted, and germinated) were subjected to nutritional evaluation. Results revealed that the roasting and germination positively affect the nutrient profile of horse gram with germination acting as a better processing method in augmenting proximate, vitamin C, enzymes activities on one hand, and indenting antinutrients on the other, in comparison to roasting, the other processing method. Food products of common consumption were developed by incorporating raw and processed forms (roasted and germinated ones) of horse gram at various levels for different life stages and disease conditions. Acceptability ratings were undertaken by a panel of semi-trained personnel. The outcome indicated that most of the test recipes were as acceptable as their respective standards when evaluated for various acceptability attributes. The study results explicitly point towards the potential of raw and processed forms of horse gram as a nourishing foodstuff. The food product development using different forms of horse gram is seen as a means to provide gateway for people to maintain their nutrition and health in various life stages and disease conditions.*
