

Effect of Roasting and Germination on Carbohydrates and Anti-nutritional Constituents of Indigenous and Exotic Cultivars of Pseudo-cereal (*Chenopodium*)

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ABSTRACT Effect of two domestic processing techniques of roasting and germination was seen on the carbohydrates and anti-nutritional constituents of two indigenous and two exotic cultivars of bathua seeds (*Chenopodium album*) (a pseudo cereal). The parameters studied were reducing sugars, non-reducing sugars, total sugars starch, energy, phytic acid, total phenol, simple phenol, tannins, Trypsin Inhibitor Activity (TIA) and flavonoid content. Results revealed that roasting and germination resulted in an increase in reducing sugars and total sugar content whereas a decrease was there in non-reducing sugars and starch content. The decrease in energy value was more in the roasted samples. The analysis of anti-nutrients revealed that total phenol and simple phenol content increased significantly with the germination whereas slight reduction was there in tannin content. The roasting of *Chenopodium* showed higher reduction in total phenol, simple phenol and tannin content when compared with raw and germinated seeds. The TIA and saponin was slightly reduced during germination and roasting. The phytic acid content was significantly ($p < 0.05$) reduced during roasting and germination of *Chenopodium* cultivars. The flavonoid content increased during germination thus increasing its anti-oxidative potential whereas roasting resulted in decrease in flavonoid content. The changes in these parameters were more in exotic varieties as compared to indigenous counterparts. Germination improved the nutritional quality of *Chenopodium*.