Tittle: Evaluation of nutritional composition of Nepalese finger millet (*Eleusine coracana*)

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Lizard plant is a medicinal aromatic herb which is indigenous to North-East India and China. The plant is being used in few communities of Nepal for lowering body blood glucose level. Evaluating the functional properties and processing effect can help in commercialization of plant. The plant was collected from local gardens of Dharan and optimum blanching time based on peroxidase enzyme activity was determined. Then the plant parts were subjected directly to processing conditions like dehydration; pressure cooking and analyzed for total phenolics, total flavonoids, antioxidant and antiglycation activity.

The total chlorophyll, total phenolics and total flavonoids content of fresh plant reduced significantly ($p<0.05$) after blanching. The dehydrated leaves showed highest retention in chlorophyll content. The effects of dehydration on total phenolics, total flavonoids and antioxidant activity was not significant ($p>0.05$) while pressure cooking had significant effect in all plant parts ($p<0.05$). Fresh leaves extract showed highest reduction in DPPH activity and had a negative correlation to total phenolics content. The fluorescence value of glycated material showed highest inhibition to glycation by fresh leaves extract (93.82%). Processing conditions significantly ($p<0.05$) decreased the activity. The study showed that total phenolics and total flavonoids content of leaves were highest in fresh sample. The results imply that these plants are potential sources of natural antioxidants which have free radical scavenging activity and might be used for reducing oxidative stress in diabetes.

Biography

Kunjal Shrestha has completed his master's degree at the age of 27 years from Central Department of Technology and bachelor in food technology form Central Campus of Technology, Tribhuvan Unversity, Dharan, Nepal. Currently, I am the head of department of food technology (B-Tech) in Sunsari Technical College. I had completed my thesis work in "Effects of processing on nutritional composition of Lizard plant (Houttuynia cordata). And looking forward to some other research work related to nutrition and plant based product to enhance healthy living.

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