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## Evaluation of protein quality in minor cereals grown in Sri Lanka

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Kurakkan (*Eleucine coracana*), Meneri (*Panicum missiaceum*),Sorghum (*Sorghum vulgare*) and Thanahal (*Setaria italica*) are under utilized minor cereals in Sri Lanka.Studies on chemical composition indicated high protein contents for Kurakkan (Ravi),Meneri(AC254),Sorghum (ICSR 94002) and Thanahal (935),i.e.7.7%,12.8%,7.8% and 13.8% (on dry matter basis)respectively. This study was undertaken in order to estimate the Protein Efficiency Ratio of the popular varieties of above cereals recommended to be grown in Sri Lanka by Field Crop Research Development Institute at Mahaillupallama.

Determination of Protein Efficiency Ratio of minor cereals was carried out according to AOAC official method using a rat bio assay method with male Wister rats. The average weight gain of rats were significantly lower than the reference diet ($p \leq 0.05$) and the estimated Protein Efficiency Ratios of Kurakkan (Ravi),Meneri(AC 254),Sorghum (ICSR 94002) and Thanahal (935) were 0.42±0.45,0.28±0.29,0.50±0.33 and 0.20±0.09 respectively which are significantly lower than the reference casein ($p \leq 0.05$).This confirmed low protein digestibility and bioavailability of the raw

cereals. It is expected that heat processing will increase the protein quality and this will be studied subsequently.

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