

A preliminary study on nutritional quality of an indigenous rice variety (Kuruluthuda) and a hybrid rice variety (BG 358)

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Rice (*Oryza sativa*) is one of the most important cereals in human nutrition, consumed by about 75% of the global population and provides 60 % of the food intake in Southeast Asia. Rice has been considered as the queen among cereals for its nutritional quality and higher digestibility. The study was carried out to compare the nutritional qualities of two rice cultivars, i.e. an indigenous cultivar, Kuruluthuda that has grown without using agrochemicals and the hybrid cultivar, BG 358 grown with agrochemicals. All rice samples were milled and using a motor and pestle and the rice samples were fragmented and used in triplicate samples. Protein Content, reducing sugar content, non-reducing sugar content, fat content, amylose content and crude fiber content in two rice cultivars were determined. protein content was determined as total N present, using Kjeldal method. Sugar and amylose content were determined using starch - iodine titration method while lipid content was determined using chloroform extraction method. Crude fiber content was determined using Soxhlet extraction method. The rice data were checked for normality (Anderson- Darling test; available in MINITAB release 16.1) and two sample T-test and ANOVA were performed to determine significance difference between rice in two cultivars. Indigenous (Kuruluthuda) rice variety was contained 8.46% protein, 0.73% sugar, 0.26% fat, 0.32% amylose and 0.30% crude fiber. Hybrid (BG 358) rice variety was contained 7.43% protein, 0.85% sugar, 0.27% fat, 0.25% amylose and 0.20% crude fiber. The indigenous (Kuruluthuda) rice therefore contains more proteins, crude fiber, amylose and less sugar and fat, thus can be considered nutritionally superior to the hybrid (BG 358) cultivar.