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Study and comparison of nutritional value of some Sri Lankan traditional rice varieties

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Rice is the staple food in Sri Lanka and it is grown in about 900,000 hectares producing three million metric tons. The current generation of Sri Lankans is becoming increasingly weak, lethargic and prone to illness. Our fragile health and poor level of fitness have been attributed mainly to the food we eat. Ancient population of Sri Lanka was a healthy group since their diet of traditional rice three times a day gave them all the energy they needed to carry out a multitude of heavy tasks. Ailments such as heart attack, high blood pressure and diabetes were almost unheard of. In order to generate such a healthy population popularizing these rice varieties will undoubtedly be an important task. This study concentrated on investigating the nutritional composition of some traditional rice varieties.

The study was focused on four rice varieties namely Suwandal, Mawee, Pachchaperumal, and Kaluheenati. Proximate analysis was carried out and results were statistically analyzed using 1 way 'ANOVA' at 95% significance level. Then mean comparisons were done by using Tukey test.

The significant differences were seen in carbohydrate (p value 0.000), protein (p value 0.000) and fat (p value 0.000) levels among four rice varieties, But there was no significant difference in fiber content among them (p value 0.239). For carbohydrate, Pachchaperumal gave the lowest value (80.507 %), different to Kaluheenati (88.057 %) and Suwandal. Mawee had second lowest (84.510 %), which was significantly different to the Suwandal (90.837 %). Mawee gave the highest protein value (9.467 %) and Suwandal showed the lowest (5.580 %). For protein levels each variety was significantly different with the other variety. No significant differences were seen in fiber content among the four varieties. For fat levels, Kaluheenati (3.173 %) and Suwandal (2.113 %) recorded significant difference with each other variety. Mawee and Pachchaperumal showed the highest and same fat level as 3.60 %.

Mawee and Pachchaperumal have significantly higher nutritional value than Suwandal and Kaluheenati. Suwandal has the least nutritional value among the four varieties.

Sri Lankans are now more concerned on the nutritional aspect of their diet hoping to prevent illnesses such as diabetes, cardiovascular diseases, etc. So consumption of traditional rice varieties may have positive benefits on this.

Key Words: Suwandal, Mawee, Pachchaperumal, Kaluheenati.