

Nutrient contents of Palmyrah root tuber preparations from Different areas of Jaffna peninsula

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Palmyrah is a traditional plant grown in Jaffna peninsula and its products mainly the palmyrah fruit pulp, unboiled & dried ('*odiyal*') and boiled & dried palmyrah root tubers ('*pulukkodiyal*') have important role in the traditional foods of the population living in this area. In Jaffna peninsula calcic red yellow latasolic soil is found in most of the areas while in some areas the soil contains high amount of ferrous oxide. Thus it is important to analyze the nutritional composition of unboiled & dried and boiled & dried palmyrah root tubers obtained from different areas of Jaffna peninsula such as Delft, Kayts, Punnalaikadduvan, Arali and Kudathanai. The mean moisture, ash, starch, fat, fibre and protein contents of unboiled & dried root tubers from different areas were 15.54(±0.56), 1.46(±0.3), 74(±1.22), 1.6(±0.3), 2.1(±0.55) & 4.35(±0.66) % respectively and that of boiled & dried palmyrah root tubers were 16.15(±0.9), 1.3(±0.26), 73.9(±1.9), 1.4(±0.1), 1.31(±0.57) & 4.8(±0.53) % respectively. Unboiled & dried palmyrah root tubers from Delft and boiled & dried root tubers from Arali showed the lowest and highest contents of moisture respectively. The highest content of protein 5.42(±0.06) % was found in boiled & dried palmyrah root tubers from Kayts. Protein contents of unboiled & dried root tubers from Kudathanai (3.41(±0.01) %) and Punnalaikadduvan (4.4(±0.02) %) showed positive correlation with their soil nitrogen contents (31.6 & 40 µg nitrate-nitrogen per g of soil respectively). Unboiled & dried palmyrah root tubers from red soil (Punnalaikadduvan) and boiled & dried root tubers from sandy soil (Delft) consisted the highest and the lowest contents of fibre respectively. Both ash & fat contents contributed a small proportion in the nutritional contents of unboiled & dried and boiled & dried palmyrah root tubers. There were no obvious differences found in the starch contents of both the flour preparations from different areas. Based on the reference values of the mineral content of the soil and the nutrient content of samples studied there were no correlation obtained. Thus the variation is mainly based on the genetic make up of the plant which needs to be studied.

Key words: Nutrient, Palmyrah root tuber, Protein, Soil property.