

**DETERMINATION OF QUALITY AND PROXIMATE
COMPOSITION BETWEEN ORGANIC AND
INORGANIC COCONUT**

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ABSTRACT

Organically cultivated coconut (*Cocos nucifera* L.) increases the nut production and productivity of coconut lands. The objective of this study was to evaluate the quality and proximate composition between organic and inorganic coconut. Complete randomized design (CRD) was used as the experimental design with two treatments replicated ten times. The study was carried out using organic and inorganic coconut as the treatments and analyzed for proximate composition, coconut water and fruit component. The moisture contents were determined by the gravimetric method of AOAC (1980), crude fibre contents were determined by the Weende method, percentage ash contents were determined gravimetrically by the method of AOAC (1980) and crude protein was determined by the kjedahl method described by AOAC method (1980) using the general factor 6.25. The percentage crude fat (lipid) contents of the samples were determined using soxhlet reflux apparatus as outlined by AOAC method (1980) while the percentage of carbohydrate contents was estimated as the Nitrogen free extract (NFE) using calculation method as outlined in AOAC method (1980). Atomic absorption spectrophotometer was used for the determination of the minerals (Mg, Na, K, Zn, Cu and Fe). SensION™ + MM15 pH meter was used to determine the pH value and electrical conductivity and Milwaukee refractometer for the determination of the brix value of the coconut water. Fruit component analysis were concerned with total nut weight, circumference of the nut, length of the nut, husk weight, nut weight without husk, nut water volume, kernel thickness, thickness of the shell, weight of the kernel, weight of the shell, length of the nut without husk and circumference of the nut without the husk. Data analysis was conducted using pool t- test assuming unequal variances.

It was found that organic fertilizers applied coconut increased the fat content and protein content in coconut kernel and also Na, Mg, K and Zn concentrations in coconut water. Reason for increasing fat and protein content in organic coconut might be the use of poultry manure. Mineral contents of coconut water increased due to the use of organic fertilizer. Whether organic or inorganic, there was no effect on the moisture content, ash content, fibre content and fruit components of coconut.

Key Words: Proximate composition, Coconut water, Fruit component, Organic coconut, Inorganic coconut.