

## **Physicochemical properties of Malaysian-grown tropical almond nuts (*Terminalia catappa*)**

### **ABSTRACT**

The seeds of *Terminalia catappa* from Malaysia were analyzed for their physicochemical properties. The following values were obtained: moisture  $6.23 \pm 0.09$  %, ash  $3.78 \pm 0.04$  %, lipid  $54.68 \pm 0.14$  %, protein  $17.66 \pm 0.13$  %, total dietary fibre  $9.97 \pm 0.08$  %, carbohydrate  $7.68 \pm 0.06$  %, reducing sugar  $1.36 \pm 0.16$  %, starch  $1.22 \pm 0.15$  %, caloric value  $593.48 \pm 0.24$  %. Studies were also conducted on amino acid profile and free fatty acid composition of the seed oil. Results revealed that glutamic acid was the major essential amino acid while methionine and lysine were the limiting amino acids. The major saturated fatty acid was palmitic acid, while the main unsaturated fatty acid was oleic acid followed by linoleic acid. In addition, the seed was rich in sucrose and had trace amount of glucose and fructose. Briefly, the seed was high in proteins and lipids which are beneficial to human.

**Keyword:** Physicochemical properties; Amino acid; Fatty acid characteristics; *Terminalia catappa*