

# Effect of maturation on the fatty acids and phospholipids composition of guava (*Psidium guajava*) fruit pulp

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A comprehensive study was carried out on the effect of maturation of the fatty acids and phospholipids composition of guava (*Psidium guajava*) fruit pulp harvested from Idu-Awaa in Enugu state of Nigeria, using standard analytical techniques. The result showed that unsaturated fatty acids (%) such as palmitoleic ( $25.83 \pm 1.26$ ), oleic ( $25.82 \pm 1.78$ ), linoleic ( $12.79 \pm 0.49$ ) and linolenic ( $8.04 \pm 0.47$ ) had the highest concentration and increased as the fruit pulp ripened while palmitic acid was the most prominent saturated fatty acid ( $24.61 \% \pm 1.52$ ) and decreased as the fruit pulp ripened. Furthermore, seven phospholipids were identified in the fruit pulp at the different maturation stages examined that increased as the fruit pulp ripened. The identified phospholipids include phosphatidylethanolamine, phosphatidylcholine, phosphatidic acid, diphosphatidylglycerol, phosphatidylinositol, phosphatidylserine and phosphatidylglycerol. A significant difference was not observed at  $P < 0.05$  in the fatty acid and phospholipid compositions of the fruit pulp at the different maturation stages examined.

**Keywords:** Fruit, maturation, fatty acids, phospholipids

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