

**Title** Storage Stability of Dried Macadamia Nut in Different Packaging Materials  
**Author** C. Borompichaichartkul, P. Maneechot, P. Homkajon and P. Tongplod  
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#### **Abstract**

Macadamia nut is a subtropical tree originating from Australia. The kernels are rich in monounsaturated fatty acids and may reduce serum cholesterol when included in the diets. It can be assumed that this is due to a particularly high oleic acid content of the nut oil. Processing methods and storage condition (temperature, humidity and packaging materials) can have a major impact on changes in quality of macadamia nut. This research was aimed to determine suitable storage condition (packaging materials and humidity) at ambient temperature to maintain superior quality of the nut. The research was conducted at 27 - 30°C, 11 – 92 % RH with two types of packaging materials namely aluminium laminated foil (OPP/AL/PE/LLDPE) and Linear Low Density Polyethylene (LLDPE) under atmospheric pressure. The results showed that the qualities of dried macadamia nut in both packaging materials were dependent on humidity. At relative humidity less than 40%, qualities of dried nut were slowly changed. However, at above 40 %RH, the qualities of the dried nut in LLDPE bag were markedly changed in terms of equilibrium moisture content, water activity, colour and gher peroxide value when compared to dried macadamia nut in OPP/AL/PE/LLDPE bag. Reducing sugar that remained in dried nut from LLDPE bag was significantly less than the dried nut in OPP/AL/PE/LLDPE bag.