

# Food Processing & Technology

October 27-29, 2016 Rome, Italy

## Effect of postharvest handling operations of oil palm fruits (*Elaeis guineensis*) on quality of crude palm oil

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In Sri Lanka, palm oil cultivation and processing of palm oil fruits has been operated as a commercial scale since last decade. Effect of postharvest handling operations of palm oil fruits such as transportation, temporary storage at the ramp, damages occurred during the transport and handling of fresh fruit bunches (FFB) were investigated in crude palm oil (CPO). The quality of CPO is mostly determined based on free fatty acid (FFA), moisture and impurities content. FFB of palm oil stored for 6, 12, 18 hours with different percentage of fruit damages (0%, 20%, 40% & 60%) were determined. There was a direct relationship between FFA content and storage period ( $r=0.993$ ). There was no significant effect of fruits received by normal transportation on FFA and moisture content ( $p<0.05$ ). The interactive effect of palm oil fruits damage and storage period on FFA was significant ( $p<0.05$ ). There was a significant effect of fruit damage on FFA content of CPO ( $p<0.05$ ). The FFA and moisture content of CPO is positively correlated with the storage period of palm oil fruits and moisture content is negatively correlated with the damage percentage of oil palm fruit. Harvested palm oil fruits at 0% surface damage can be stored for 57 h which comply with the quality standard (FFA<5%, moisture<0.3% and impurities<0.2%).

### Biography

I H R Uthpala has completed her B.Sc at the age of 26 years from University of Peradeniya, Sri Lanka in the stream of Food Science and Technology as well as is reading M.Sc in the same university. This reaserch has been done at AEN Palm Oil Processing (Pvt) Ltd, Baduraliya, Sri Lanka with the advise of Mr. P.C. Arampath and Mr.(Eng) M. S. Bandara. She is the Quality Assurance executive in leading palm oil manufacturing organization, AEN Palm Oil Processing (Pvt) Ltd, Sri Lanka. She has written manuscripts, research papers, reviews related to food technology.

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