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Charactetization of lauric oils

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The major lauric oils that are commercially important are virgin coconut oil (VCO), king coconut oil (KCO), ordinary coconut oil (CNO), coconut paring oil (CPO) and palm kernel oil (PKO). Variation of oil composition and quality in different lauric oils provide important background information for their use in product development and processing. However, no comprehensive study has been reported on all of these oils. This study was undertaken to characterize the above mentioned oils with respect to their analytical parameters namely fatty acid composition, iodine value (IV), slip melting point (SMP),

free fatty acid (FFA) content, peroxide value (PV), moisture content (MC) and colour. VCO, KCO and CNO showed significantly higher ($p<0.05$) lauric acid contents than those of PKO and CPO. PKO showed the highest oleic acid ($C_{18:1}$) content (14.97 $\pm$ 3.18 %) and it was the lowest for VCO (4.66 $\pm$ 0.39 %). Linoleic acid ($C_{18:2}$) was significantly higher in KCO and VCO than those of other oils. A significant difference ($p<0.05$) in IV was observed for all the oils, while the highest was reported for PKO (15.856 $\pm$ 0.184) and the lowest was for VCO (6.422 $\pm$ 0.707). There was no significant difference ($p<0.05$) in MC and SMP of all five oils. The MC varied between 0.12 $\pm$ 0.03 and 0.16 $\pm$ 0.05 % while SMP varied from 25 $\pm$ 0.0 to 26.5 $\pm$ 1.39 ^{o}C for all the oils. VCO showed a significantly lower ($p<0.05$) colour when compared to that of PKO. As linoleic acid content is higher in both KCO & VCO than those of other oils, KCO & VCO are useful in nutritional aspects.

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