Distinguishing coconut oil from coconut pairing oil using principle component analysis of fatty acid data.

ABSTRACT

A study was carried out to distinguish coconut oil from coconut pairing oil by the application of principal component analysis (PCA) to fatty acid compositional and iodine value data. Five samples of ordinary coconut oil extracted from five different batches of copra and five samples of coconut pairing oil obtained from five batches of dried coconut pairings were employed. Fatty acid composition and iodine values of oil samples were determined individually and the data were analyzed statistically. PCA analysis showed that lauric and oleic acid contents and iodine value data are the most influencing parameters to discriminate coconut oil from coconut pairing oil. Hence, the application of PCA to fatty acid compositional and iodine value data was successful in distinguishing coconut oil from coconut pairing oil.