

Characterization and fat migration of palm kernel stearin as affected by addition of desiccated coconut used as base filling centre in dark chocolate

ABSTRACT

The characterization and fat migration of palm kernel stearin (PKS) and desiccated coconut, used as base filling centre in dark chocolate were studied. C36 and C38 triglycerides of PKS decreased by 11% and 9.6% respectively, whereas C32 and C34 increased by 97% and 48% respectively. The change in the triglycerides composition of PKS shift the melting point of PKS from 33.2 to 31.4°C. Solid fat content (SFC) of PK reduced by 40% at 30°C. The rate of fat migration was very slow at 18°C storage compared to 30°C. The rate of change of C36 in the chocolate layer was 0.1% week⁻¹ and 1.2% week⁻¹ at 18 and 30°C respectively. Chocolate stored at 18°C showed post hardening during storage period and withstood bloom during the storage period, whereas that stored at 30°C became soft and bloomed faster after 3 weeks of storage.

Keyword: Dark chocolate; Palm kernel stearin (PKS); Desiccated coconut; Fat migration