

Quality of chemical re-fined kenaf (*Hibiscus cannabinus* L.) seed oil during accelerated storage

ABSTRACT

In accelerated stockpiling at 65 °C for 24 days, an oxidative stability test was performed on crude and re-fined kenaf seed oil. The outcomes revealed which refined oil underwent higher oxidation than the crude oil, as indicated by the peroxide value (40.55 meq/kg), p-Anisidine value (18.78) and total oxidation value (99.87) in re-fined oils at day 24. A free fatty acid value in the refined oil did not differ significantly and remained less than 1% during accelerated storage. After accelerated storage, the phenolic substance and anti-oxidant movement of re-fined oil was altogether lesser than crude oil. During accelerated storage, refined oil decreased by 67% tocopherol substance and 12.1% phytosterol substance. After storage, there was no huge contrast in a content of tocopherol and phytosterol for crude and re-fined oils. The rate of tocopherol and phytosterol degradation in re-fined oil during storage was lesser than in unrefined petroleum (crude oil). Un-saturated fatty acids decreased slightly during storage, together with a slight increase in saturated fats in kenaf seed oil. The refining process reduced the oxidative steadiness of kenaf seed oil, but the refined oil could be able to maintain good quality in the estimation of Free Fatty Acid (FFA) and a composition of fatty acid, and to protect tocopherols and phytosterols.