

Recovery of residual crude palm oil from the empty fruit bunch spikelets using environmentally friendly process

ABSTRACT

The development of new, low-cost technology to increase the oil recovery in the palm oil mill especially from the palm oil wastes has been an important goal for the industry to increase OER. According to preliminary oil detection, the residual oil is mainly located on the surface of spikelet, about $73.73 \pm 0.05\%$ from total residual oil. The combined water-steam shows the best oil extraction process, indicating $82 \pm 0.13\%$ of oil may be removed from the EFB spikelet. Thus, this method is chemical free and environmentally friendly residual CPO recovery process using EFB.

Keyword: Empty fruit bunches (EFB); Spikelet; Crude palm oil (CPO); Hydro solvent assisted steam extraction (HYSASE); Oil recovery