Analysis of Yield and Some Physicochemical Properties of Tallow Rendered from Leather Industry Waste

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Flesh samples collected from fleshing waste of leather factory were heated and tallow was collected as melted fat. The tallow yields were compared on the basis of gender, region, and species. There are significant differences *(P<0.05)* in tallow yields obtained from cattle with respect to gender and region (Up country and low country), There is no significant difference *(P*< 0.05) among tallow extracted from males and females of buffalo as well as between the tallow from cattle (Low country) and buffalo (Low Country). The iodine, saponification, acid values and free fatty acid and % of crude fat contents were169.2, 301.0 mg KOH/g, 51.78 mg KOH/g, 0.5 as % of oleic acid and 37.66% respectively. Ash value and moisture contents were 0.16 mg/g and 1.38% respectively. Extracted tallow complies with the CODEX standards except for acid and saponification value for edible fats but cannot be recommended for human consumption unless further investigations for mineral contamination are conducted. Higher saponification values lower the suitability of tallow for soap and candle production.

Key words: Tallow, Rendering, Yield, Quality