

## Assessment of Physico-Chemical Properties and Acceptability of Avocado Pear (*Persea americana*) Skin Inclusion in Ruminant Diets

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**Abstract :** The study was conducted to evaluate the silage quality and acceptability of ensiled avocado pear skin (APS) with cassava peel (CSP) and brewers' grain (BG) using eighteen (18) West African Dwarf goats with an average weight of  $7.0 \pm 1.5$  kg. The experimental diets; 1) 50% cassava peel+ 50% brewers' grain, 2) 50% brewers' grain+ 50% avocado pear skin, 3) 50% cassava peel +25% brewers' grain+ 25% avocado pear skin were ensiled for 21 days. The experimental design was a completely randomized design (CRD). The chemical composition of the diets was investigated. The acceptability of the diets was evaluated for twelve (12) days. Results obtained showed that the crude protein content ranged from 12.18 - 12.47%, crude fiber (15.99-22.67%). Results obtained showed that diet 1 had the least pH value (4.0), followed by diet 3 (4.5) and diet 2 (5.2). All diets were firm in texture and maintained their initial color. The temperature ranged from 27-29 °C with diet 2 having the highest temperature of 29 °C. Acceptability of experimental diets varied ( $p < 0.05$ ) significantly. Dry matter intake ranged from (426.22-686.73g/day) with animals on a diet one recording the highest dry matter intake. The coefficient of preference and percentage preference, also differed ( $p < 0.05$ ) significantly among the diets. Diet 1 had a coefficient of preference greater than unity. However, this was not significantly ( $p > 0.05$ ) different from diet two but differed from diet 3. Conclusively, APS could be included in goats' diets in the absence of CSP during feed scarcity provided a rich source of protein is available.

**Keywords :** avocado pear skin, Brewers' grain, Cassava peel, preference

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