

Abstract on values of sawdust degraded diastatic microbes (of *Achatina fulica*) fed goats as part of formulated diets as an alternative municipal organic waste management

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Experiment was conducted to evaluate the utilization of sawdust degraded diastatic microbes (SDDM) (of *Achatina fulica*) as feed component for Red Sokoto goats. Thirty six Red Sokoto goats of mixed sexes (18 females and 18 males), average body weight 4kg, between 4-5months of ages were used. Goats were randomized into 3 groups of 12 goats per group, consisting of 3 goats per replicate, which replicated 4 times. Groups were assigned to each of the 3 diets (T1 with 15% undegraded sawdust, T2 with 15% SDDM and T3 with 25% SDDM). Investigations revealed the chemical composition of the organic matter, ash, and the energy generally were low on the SDDM ($P > 0.05$) when the sawdust was degraded with the diastatic microbes. The SDDM protein, crude fibre, ether extract, nitrogen free extract as well as the nitrogen followed a different dive with great increment over the untreated sawdust. This could be due to the efficiency of the diastatic microbes in the degradation of the sawdust to

make the nutrients available for the efficient farm animals' utilization; which is an indication of quality sawdust produced (SDDM). The daily feed intake and weight gain values (435.87g) (79.37g) and (308.25g) (15.87g) differed ($P < 0.01$) as against the values in T1. However the efficiency of feed utilization values (T3 and T2; 19.42, 5.49) differed ($P < 0.01$) over T1. The cost of feed/kg and cost of production/goat showed better values on the T3 ($P < 0.05$) over of T2 and T1; while the gross and net profits were generally better ($P < 0.01$) in T2 followed by T3 and T1. Similar trends were observed on carcass values, wholesale cuts, lean/bone values and pelts, respectively. It was concluded that, the inclusion of SDDM at 15% and 25% as part of formulated concentrate diets for growing goats gave the best results, over the undegraded sawdust.

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