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MILK PRODUCTION AND QUALITY OF DAIRY ZARAIBI GOATS FED *TRIFOLIUM ALEXANDRINUM* (1ST CUT) SILAGE WITH SOME CROP RESIDUES

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ABSTRACT

Forty lactating Zaraibi does were grouped into 4 feeding treatments for 19 weeks. The treatments were; G-1: concentrate feed mixture (CFM)+(70% berseem, 25% rice straw & 5% yellow corn) (S-1); G-2: CFM+(70% berseem, 25% wheat straw, & 5% YC(S-2); G-3: CFM+(70% berseem, 25% bean straw & 5% YC) (S-3); G-4: CFM+ (70% berseem, 25% corn stalk, & 5% YC) (S-4). All groups were fed on restricted amount of CFM to cover 50% of the requirements recommended by **NRC (1981)** for lactating goats. Yet, the different combinations of the four silages were fed *ad libitum*.

The main results indicated significant higher digestion coefficient of most nutrients with G-3 and G-4 compared with G-1 and G-2. Moreover, TDN and DCP values were significantly higher with G-3 and G-4 compared with G-1 and G-2. Milk yield was significantly higher with G-4 (1.397 kg/h) followed by G-3 (1.338 kg/h) then G-2 (1.190kg/h) while the lowest with G-1(1.150 kg/h). The effect of different silages studied on milk composition was not significant. But, somatic cell count (SCC) was correlated negatively with milk yield. The results indicated that there was no significant variation among different groups regarding milk quality.

The results indicated also that the highest DM intake was recorded with G-4 (89.89 g/kg $W^{0.75}$) followed by G-3 (88.40) then G2 (84..35) and the least with G-1 (83.42). In the same time, the feed conversion efficiency based on DM and TDN was better with G-3 and G-4 compared with G-1 and G-2. Economic efficiency analysis indicate that G-4 (containing corn stalk silage) was economically better than G-1 and G-2, followed by that containing bean straw silage.

Keywords: lactating goats – milk yield – milk quality – feed conversion – economical efficiency.