

## **COMPARISON OF FEEDING REED AS HAY OR SILAGE WITH FEEDING BERSEEM HAY OR MAIZE SILAGE TO DAIRY ZARAIBI GOAT**

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### **SUMMARY**

This work was carried out on lactating Zaraibi goats to investigate the benefit of using reed silage (RS) or reed hay (RH) instead of maize silage (MS) or berseem hay (BH) for feeding dairy goats. Parameters to evaluate the effects of different rations were milk production and quality and feed efficiency. Thirty-six Zaraibi does weighed in average 33.2 kg were divided randomly into 4 groups, 9 does each. All groups were offered fixed amounts of concentrate feed mixture while hay or silage were offered *ad lib*. Feeds tested were maize silage (MS), reed silage (RS), reed hay (RH) and as a control berseem hay (BH). . The feeding trials lasted 16 weeks. Besides, 12 Zaraibi bucks averaged 41.0 kg live body weight were used in four digestion trials to evaluate the nutritive value of the tested rations.

The results indicated that digestibilities of all nutrients were significantly better with MS and RS compared to RH and BH. The TDN value was significantly higher with silage rations (MS and RS) compared with both RH and BH. The highest DCP was recorded with MS (8.77%) followed by RS (8.64) then BH (8.51) and RH (8.19). The minimum pH values and the maximum NH<sub>3</sub>-N, total VFA's and microbial protein values in rumen liquor were recorded 3 hrs post feeding and the effect of experimental diets was significant alone with total VFA's and microbial protein contents. The results showed also that most of the tested blood parameters were not significantly affected by the four experimental diets.

Silage diets were significantly better than hay involved diets, in milk yield, by 11.39%. Reed silage diet had insignificantly less milk yield (-2.09%) than maize silage diet. Meanwhile, Reed hay diet had insignificantly less milk yield (- 4.79%) than BH diet. Accordingly, Reed offered as silage was parallel to MS and better than BH, while reed hay gave the least milk yield..

Milk components (protein, lactose, SNF and ash) were not significantly differed among the tested diets. However, maize silage diet recorded the lowest milk fat (3.00%) (P< 0.05) and total solids. Somatic cell counts (SCC) were not differed among the tested rations.

The results indicated also that the highest DM intake (g/kgw0.75) was recorded with MS (95.48) followed by RS (93.74) then BH (91.27) and the least with RH (88.69). In the same time, the feed conversion efficiency (kg DCP/ kg milk) recorded approximate values (from 0.102 to 0.107) in all groups. Economic efficiency data indicate that the reed rations (RS and RH) were economically better than BH ration, followed by that containing maize silage.

It could be concluded that both RS (reed silage) and RH (reed hay) had good palatability and adequate feeding value with less extent for the later for lactating Zaraibi goats when fed with CFM. Both could economically replace the high quality summer forages like maize silage and berseem hay without any negative effect on the quality of milk.

**Keywords:** *dairy goats- feeding value- rumen and blood parameters- milk production- milk quality –feeding and economic efficiency.*