

## Alternative feed base with stall-feeding: the key to reducing grazing/browsing pressure from natural grasslands in Uganda

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Natural grasslands support about 90% of Uganda's live-stock population. In this system, goat and sheep herds are always integrated with cattle herds, hence, grassland areas in Uganda have been more accurately labelled the "cattle corridor" (Kisamba-Mugerwa, 2001). However, at present the cattle corridor is under heavy grazing and browsing pressure. Besides, the inherent communal land-tenure system hampers efforts to improve its proper management. The

rapidly increasing human population has also caused an increased need for food crops, which has led to a drastic reduction in available grazing areas within the corridor. With tree felling the entire corridor has subsequently been marginalized. As a result fodder needs now exceed the sustainable yield of the cattle corridor. The rainfall pattern has also made its productivity very seasonal.

Goats have become an important asset and source of income in the cattle corridor, because they have the ability to survive in environments with sparse vegetation, hence both high and low income households can afford to keep goats. Their role has been



**Figure 1: Goats feeding on market *Solanum aethiopicum* wastes**

amplified by the rising interest and demand for goat meat in the urban areas. The consumption for goat meat has been reported to be growing at a rate of 3.2% annually compared to the 1.7% for beef (FAO, 2005). However, goats have been blamed for contributing substantially to the grassland degradation. They eat almost anything left in an already degraded environment. They will browse shrubs and trees, graze forbs and grass, and eat fallen fruits, bark and other dead plant material. They also have the ability to graze in areas inaccessible to other large herbivores such as in trees or in dense thickets or slopes. These inherent abilities in turn make goats a major cause of degradation.

To deal with this problem of grassland degradation, which subsequently causes fodder shortage, there is a need to improve the feed base through better

utilization of any available feed resources, preferably in a cut-and-carry (stall-feeding) system. In Uganda there is an increased use of non-conventional feed resources under stall-feeding, particularly in urban and peri-urban production systems where fodder cultivation is almost impossible.

For instance the marketing of many crops in Uganda is done in their raw form, with the traders providing the link between the rural producers and the urban consumer markets. This practice has been reported to be a key source of crop waste in urban markets. It is estimated that more than 18,000 MT (Ekere, unpublished data) of crop wastes are generated within the markets of Kampala per year and are of potential feed to goats (Figures 1

**Figure 2: Goats feeding on market sweet potato vine wastes**



**Table 1: Nutritive value of selected market crop wastes in Kampala, Uganda**

<b>Market Wastes</b>	<b>DM (%)</b>	<b>CP (%DM)</b>	<b>NDF (%DM)</b>	<b>Effective DM Degradability (%DM)</b>
Sweet potato ( <i>Ipomoea batatas</i> ) vines	19.7	11.2	40.9	69.4
<i>Solanum aethiopicum</i> (leafy vegetable)	12.1	11.4	54.8	55.7
Banana ( <i>Musa acuminata</i> ) leaves	21.6	10.9	61.3	43.1
Banana pseudo-stem sheaths	9.7	3.4	65.9	47.3
Banana peels	18.6	6.0	31.7	57.7

and 2).

Due to financial hardships, these wastes are left uncollected in the markets causing serious environmental and social problems. The potential of their use as feed for goats has been investigated at Makerere University, Kampala, and basing on their chemical composition and dry matter degradability (Table 1) the studies have shown that a number of them are potential feedstuffs for goats particularly where feed resources are scarce, in a cut-and-carry system. However, to be used successfully they should be collected from the markets early enough before they are contaminated with other undesirable wastes as a consequence of the practice of indiscriminate dumping.

In conclusion, by using such wastes the problems of waste disposal within the urban markets may be reduced as well as easing the grazing

pressure on the already degraded grasslands.

### References

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