

An Improved Method of Traditional Goat Husbandry in Imo State, Nigeria

Onyirioha, J.N N. Ph.D, Iwu R. U. Ph.D, Azoro A.V., and V. O. Ogwo
 Department of Biology, Alvan Ikoku Federal College of Education, Owerri
 Corresponding Author: Onyirioha J. N. N.

Email: Jnno-2k@yahoo.com; nwachukwucu2005@yahoo.co.uk

Abstract: The abundant vegetation in Imo State could be more properly harvested through animal husbandry that is handled with high level of management skill. Traditionally in Imo State, goats are reared as open free range animals or confined in small pens where food is provided, but often in insufficient quantities. No special skill is employed and people of all ages are engaged in the industry. Attempts at commercialization of the industry have been difficult because of their slower growth rate, low fecundity and problems associated with keeping a large number of such animals in a place, which do not allow for a quick realization of profit expected by the huge investors, to be made. In order to hasten the growth rate and make the industry more profit-oriented, a feeding method and supplement feed meal, at reasonable cost have been worked out through intensive investigation. Improved traditional goat husbandry is an asset to quick industrialization of the rural areas and upliftment of the living standard of the people because of the high potentialities of the product. Goat products include milk and meat are of high nutritional value and therefore required to offset the nutritional imbalance among the rural populace in particular.

[Onyirioha, J.N N. Ph.D, Iwu R. U. Ph.D, Azoro A.V., and V. O. Ogwo. **An Improved Method of Traditional Goat Husbandry in Imo State, Nigeria**. New York Science Journal 2011;4(1):79-82]. (ISSN: 1554-0200). <http://www.sciencepub.net/newyork>.

Keywords: Improved, Goat, husbandry, feeding, economy

Introduction

Imo State, one of the Southern States of Nigeria, situates in the humid tropical environment in West Coastal areas of Africa characterized by high temperature, abundant sunshine and heavy rainfall with high relative humidity. The vegetation is typical tropical rainforest associated with evergreen vegetation. The bulk of the abundant herbage is made up of tall grasses, in part.

Traditionally in the state, goat husbandry is predominantly a rural business and most rearers keep goats as part-time occupation to raise small flocks from which they can realize immediate cash to offset sudden debts or obtain meat to entertain people on important occasions. Goats are rarely reared to produce milk as done in the western world.

Goat husbandry is managed in two main ways in Imo State and most other parts of southern Nigeria. Most keepers rear their goats as open free range animals taking advantage on the abundant herbage around but this method is often in conflict with man's other interest, especially agricultural crops which are also eaten by the roaming goats. In the morning the flocks are let loose into the open to roam about unrestricted and browse on all sorts of vegetation available. In the night they are housed in small huts made of mud walls and thatched roof or bamboo sticks. Little additional care, except regular removal of the dropping, is paid to their needs, to supplement their food or prevent the spread of diseases. In the second method, the animals are confined in small pens where food, comprising mainly leaves from the numerous

trees and shrubs around randomly selected is provided, often in insufficient amounts. No efforts are made to improve on the quality of food and the animals may be fed on one type of material for long period even when they show signs of emancipation and loss of vigour. The goats reared in the southern parts of the country, including Imo State, are of the dwarf variety and are relatively smaller than the northern breeds, but produce meat of tastier quality. They are slow growers and their fecundity tends to be low. These and other problems facing goat farming in Imo State were investigated by establishing experimental yards in which small flocks were reared and their performance under different management methods evaluated.

EXPERIMENTAL YARD

The objectives for setting up the experimental yard include:

- To study the existing traditional management system and make the necessary innovation for accelerated production and maximum yield.
- To establish good environmental need for the animals with reduced stress to the factors necessary for growth and improved productivity.
- Raise and isolate the breeds and hybrids of the animals of better yield and productivity if supplied with all the necessary environmental factors.
- To construct models that is adaptable to schools and at village levels.

THE IMPROVED MANAGEMENT SYSTEM

The management intervention could be described as a marriage between the close free range system and the traditional confined pen system. The basic features of this improved method are:

1. *The Free Confinement*

The goats were reared as close range animals for the part of the day starting from middle part of the morning to late afternoon. They are rotated between three plots in the experimental yard, 60m x 150m partitioned into three plots (each 20m x 150m) and fenced off from adjacent land with wire netting (fig. 1.). The yard was covered, in part, by carpet grass and in part by dwarf shrubs of edible types and elephant grass.

2. *Pen Confinement*

For the night and the rest of the day, the goats were confined in a pen. The pen had dwarf walls complete with wire-netting and the floor was covered with dry mud. In the pen, the ruminants were fed with; fodder composed of leaves of Acacia, orange, oil palm, mango, plantain, guava, *Eupatorium odoratum*, elephant grass, bamboo, burweed and pawpaw.

3. *Supplementary Feeding*

Supplementary concentrate composed of household waste such as peels of cassava, yam,

cocoyam, potato, plantain, banana and pap-propagation by-product, dried, ground and enriched with whole blood from slaughter houses and additives such as table salt and vitamins, was also considered to remove imbalance in the diet. The supplement concentrates were usually provided in the pen at the rate of 150-200 grammes per head per day.

Enough fodder was provided to enable the animals to feed throughout the night when they wished to do so. Any more items were available to be included as feed material but the choice of the enlisted items was made after careful consideration and based on the fecal analysis to determine their individual digestibility and comparing the results with the existing records such as represented on table 1. With those feeds the experimental animals gained weight fast and fecundity of 4 kids in a birth was recorded.

4. *Accommodation*

In the open, the animals were allowed a maximum space of 20m x 150m at a time and in the pen 3m x 6m. These were considered enough spaces from ten does and two burks in the investigation but could accommodate more animals under very health situation.

Results

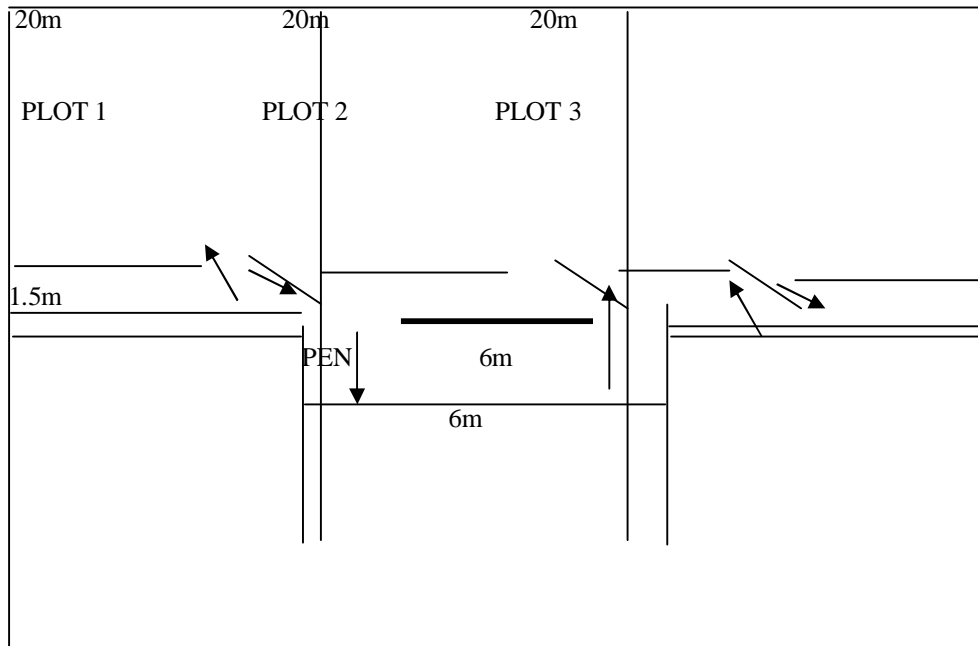


Fig.1 Layout of improved method of traditional goat husbandry

Table 1: Approximate Composition of Some Food Items (%)

	DAY MATTER	CRUDE PROTEI N	ETHER EXTRACT	CRUDE FIBRE	N ₂ FREE EXTRAC T	ASH
Leaves						
Orange	55.2	20.1	1.9	26.6	42.2	9.0
Acacia	29.9	11.2	0.8	23.8	57.2	7.0
Oil palm	50.1	12.8	6.6	29.8	44.2	7.0
Mango	19.2	10.1	1.3	30.5	63.1	5.0
Plantain	35.7	19.9	1.0	24.1	44.5	10.5
Eupatorium	44.5	20.1	3.8	9.3	58.7	7.6
Elephant grass	26.8	13.1	2.0	34.4	43.7	6.8
IndianBamboo	46.7	19.5	1.8	28.2	39.5	11.0
Burweed	36.1	19.9	2.0	11.4	62.8	3.9
Pawpaw	24.6	32.6	0.6	7.3	48.3	11.0
Peels of cassava	27.9	5.3	1.2	21.8	66.6	5.9
Yam	63.3	30.3	2.9	23.7	6.4	26.2
Cocoyam	33.2	9.4	0.8	5.7	73.3	38.3
Plantain	17.2	10.6	9.6	5.8	61.1	12.8

DISCUSSION

The major problems facing traditional goat husbandry are outdated farm practices; lack of capital; market competition with some exotics and land tenure system.

Goat food requires a large amount of energy and protein for it to carry out its daily activities (Machenzie, (1957). The luxurious forest of Imo State could provide just this. The abundant herbage is present as tall trees and shrubs which are mostly out of the reach of the dwarf goats. Where such is available, the roaming goat come into serious conflict with man's other interests, the agricultural crops and in addition may face other environmental hazards. Devising a proper way of harvesting the herbage without seriously affecting other investments is of economic interest.

The northern states have been popular in livestock production because of the expensive land covered by shorter shrubs and grasses which could be reached easily by their roaming tall-legged goats and other herbivores. Full time animal farming is then profitable because it could provide people engaged in it with adequate means of livelihood. In spite of the expensiveness of the pasture land in the North, the Southern forest still carry out more primary productivity with their huge trees which accumulate more biomass than the grasses of the North. Besides, grasses are shallow feeders and therefore poorer in nutrition cycling and this explains, at least in part, why over- grazed areas of the North are more prone to severe erosion. Goat is promising animal in livestock

industry and accounts for about 50% of the total ruminant livestock in West Africa, Jonke (1982).

Place of Goat Husbandry in Economy of the State

The oil boom euphoria did not spare rural farming including goat farming when every villager he could reach for adequate meat in his diet without efforts in animal production, hence the abandonment of virtually all the traditional productive enterprises. This has worsened the nations economic which as third world nation, engages in distributive trade of finished imported and expensive goods rather than exporting raw and finished agricultural products which are useful in foreign exchange earning. The government has made persistent call for people to go-back-to-land!. The basic raw materials coming from a well planned goat husbandry are milk, meat. Hides and skin.

Goat Husbandry, in addition to helping in reducing the gross imbalance in the ratio of crops to livestock which now stood at 89.1% to 10.9% (Williams (1983), will also afford employment opportunity for young school leavers and retired public servants returning to rural areas.

Well established school farms with goat husbandry will not only yield revenue for the school, but also serve success of supply of animal protein to the growing young people and villagers around and could be integrated with crop farming to provide farmyard manure and give a better agricultural economy. A good agricultural economy should be able to support a healthy population and a productive and

efficient man-power- force that is capable of transforming the resources available into goods and services and we cannot achieve this, relegating animals. In the olden days it was customary for every family to keep a few goats for rare functions but things have changed now with growing awareness of importance of adequate animal protein in our diets. Keeping a few goats is no longer economical. Animal production needs be intensified alongside a campaign programme to educate the masses on the value of animal proteins in their diets.

Goat farming is recommended more suitable enterprise than poultry and piggery which will require food with less fibres, (Michel (1942), and high energy grains also needed by man.

CONCLUSION

Goat husbandry could be a very profitable enterprise if managed on close free range basis integrated with the pen system. Their food should be supplemented and the animals fed on 24hour basis each day. The open free range system is no longer advisable because of growing urbanization and agricultural interest which tend to limit the space available.

RECOMMENDATION

The more serious problems facing goat husbandry in Imo state include inadequate and unbalanced nutrition, poor management style, diseases and parasitism, lack of capital, more interest in crop farming, land tenure and inherent genetic problems. The problem of feeding could be solved, at least in part by the farmers growing the trees and shrubs from which they can obtain regular supply of fodder. Supplement feed should be a must for animals to do well.

The farmers should pay more devoted attention to the industry by mapping out space to

accommodate the animals even at the sacrifice of crop farming. The investment of resources in terms of land should be given strong consideration because it is the key to the success of the enterprise. Government has established a breeding stand at Emekuku and other places to supply improved breeds which are usually produced and identified by specialists trained in selective animal hybridization. The services of extension officers should also be sought from the veterinary clinics and Imo state accelerated development area programme (ISADAP) for the care of the sick animals and control of parasitic infections. Man's literacy campaign should be intensified because literate farmers will appreciate new innovations better.

Corresponding Author:

Onyirioha J. N. N.

Email: Jnno-2k@yahoo.com

REFERENCES

- Ademosun, A.A. (1989). Goat Production in the Humid Tropics, Proceeding of a Workshop at the Obafemi Awolowo University, Ile Ife, Nigeria, 20-24th July. 1989.
- Johnke, H.E. (1982). Livestock Production System and Livestock Development in Tropical West Africa, Kieler Wissenschafts Verlag Vaul, Kiel, West Germany.
- Machenzie, D. (1957). Goat Husbandry. Longman Publishing Group Ltd, London, pp.212 – 213.
- Michel, (1924). Recent Advances in Animal Nutrition. Butterworks, London, Boston, Derban, Singapore, Sydney, Toronto, Wellington, p.81.
- Williams, R. (1983). Practical Livestock Farming Series (1). Introduction to Livestock Farming.

11/15/2010