

Implications of the Slaughter of Pregnant Ewes and Does to Future Stock in the Semi Arid Urban Abattoir

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Abstract: The objective of the study is to determine the proportion of fetuses destroyed due to the slaughter of pregnant sheep and goats relative to the total number of small ruminants in urban abattoir. Two studies were conducted. In study one, 150 structured questionnaires were administered to butchers while study two, data were collected at the main Kano abattoir for 2 months. Result of the survey showed butchers vary in age (<20 to above 51 years). Youth were the main source of labour. All the butchers were males and mostly married (76.67%), they had secondary education and were mostly engaged in evisceration activities (50%). The structure of sheep and goats slaughtered at Kano abattoir revealed significantly higher ($p < 0.05$) number of goats relative to sheep. Also, significantly higher ($p < 0.05$) number of in-lamb sheep were slaughtered compared to in-kid goats. The study showed 34.3% sheep and 26.1% of in kid goats was slaughtered daily in urban abattoir. One out of every 3 ewe or 4 does slaughtered was pregnant. The data estimated 0.26 million lambs and 0.21 million kids were being destroyed annually due to the slaughter of pregnant animals. Reasons for the slaughter of pregnant animals advanced by butchers were either due to poor economic status or ignorance of the physiological status of the animals. It is recommended therefore, that antemortem inspection be conducted to identify pregnant animals for restriction or advice against their slaughter. Legislation prohibiting the slaughter of pregnant animals should be enforced. Government agency, Cooperative or NGO could organize the purchase of potentially healthy pregnant animals for rearing.

Key words: Pregnant sheep, goats, fetus, abattoir, semi arid

INTRODUCTION

The distribution of ruminant livestock population by ecological zones of the tropical Africa as obtained from Jahnke (1982) showed that 71.50% sheep and 81.30% goats are from the savanna ecological zone. There are an estimated 22.1 million sheep and 34.5 million goats in Nigeria (RIM, 1992). Some of the major production constraints include lack of adequate feed resource, poor level of nutrition, inadequate health care delivery, pest and diseases as well as poor husbandry practices.

The slaughter of pregnant animals in urban abattoirs is becoming a very serious constraint to future livestock population. Sunusi *et al.* (2006) found that 57.85% does and 61.39% ewes slaughtered at Bauchi and Jos abattoirs were pregnant. In Western Nigeria (Taiwo *et al.*, 2006) reported that pregnant animals constituted 6.39-10.27% of the small ruminants slaughtered at Ijebu-Igbo and Lafenwa in the wet season. Oyokunle *et al.* (1992) reported between 14 and 20% of cows slaughtered at Abeokuta and Ijebu-Igbo abattoirs, from 1984-1989 were

pregnant. Abiola *et al.* (1999) recorded in the early wet season, 6.33% foetal loss at slaughter slabs in Ibadan, South Western Nigeria. In North western Nigeria, Ataja and Uko (1994) reported 24.06% of female camels slaughtered for meat in Sokoto abattoir in 1992 were pregnant.

Kano is one of the highest populated cities in Nigeria and according to 2005 national census, the state ranked first in human population in the country. It would be expected that more animals are likely to be slaughtered to meet the animal protein requirement of the large population. Our concern here is, that, the growing practice of slaughtering pregnant animals would have a negative consequence on the future stock population. The objective of the present study was therefore, to determine proportion of pregnant sheep and goats slaughtered relative to the total number of small ruminants in Kano urban abattoir. It is hoped that the result would sensitize livestock professionals and policy makers in the implication of slaughter of pregnant animals, to the future of the national foundation stock.

MATERIALS AND METHODS

Description of the study location: Kano is located between latitude 11 and 14°N in the semi arid zone of Nigeria where draught and associated weather condition are eminent. It has a landmass of about 43,000 square kilometers. Kano receives rainfall of between 600-1000 mm, annually. The location has about 4-8 months of dry season with maximum and minimum temperatures of 33 and 15.18°C, respectively. It goes as low as 10°C during harmattan. The environment is conducive to different species of livestock production (cattle, sheep, goats, rabbits, donkeys, horses and poultry). It is also favored with abundance of grassland for grazing by animals and free from tsetse fly infestation.

Procedure

Study one: One hundred and fifty structured questionnaires were administration of to butchers in Kano abattoir. Information collected were biodata of the respondents which included age group, marital status and educational status, type of activity engaged by the butchers, their involvement and experiences (Table 1 and 2).

Study two: Weekly visit, to Kano main abattoir from 6:00-10:00 am was done over a period of 6 months. The period between 6:00 and 10:00 am was when the sheep and goats are brought to the abattoir for slaughter. Slaughter was by manual cut of the skin, flesh and puncture of the jugular vein closest to the cranial region using a sharp knife. Thereafter, activities of flaying off skin and puncture of the abdomen to separate the viscera from the meat followed. Animals with dead foetus in their reproductive tract were identified and recorded.

Table 1: Background of butchers at abattoir Kano

Variables	Frequency	(%)	
Age group	<20 years	10	6.67
	21-30	55	36.67
	31-40	35	23.33
	41-50	20	13.33
	51 and above	30	20.00
Gender	Male	150	100.00
	Female	0	0.00
Marital status	Single	35	23.33
	Married	115	76.67
Educational status	Quranic school	45	30.00
	Primary school	35	23.33
	Secondary school	65	43.33
	Tertiary institution	-	-
	Adult education	5	3.33
Types of activity engaged	Slaughtering	5	3.33
	Skinning/flaying	40	26.67
	Evisceration	75	50.00
	Others (washing of viscera)	30	20.00

Table 2: Causes of foetal lost in small ruminants at Kofar Mazugal abattoir, Kano state

Variables	Frequency	(%)	
Attendance of abattoire	Regular	150	100.00
	Irregular	-	-
Number of small ruminant slaughtered per day	100-299	5	3.33
	300-499	20	13.33
	500 and above	125	83.33
Observation of slaughter of pregnant Small ruminant	Observed/Yes	150	100.00
	Not-observed /No	-	-
Estimate of foetuses recovered per day by each individual	1-5	-	-
	6-10	5	3.33
	11 and above	145	96.67
Period of occurrence of the incidence	Early dry season	10	6.67
	Late dry season	-	-
	Early wet season	115	76.67
	Late wet season	10	16.66
Reasons of the occurrence	Urgent needs	60	40.00
	Ill-health	10	6.67
	Don't need the animal	25	16.67
	Others(ignorance)	55	36.33

Records were taken on the number of sheep and goats slaughtered. The records collected were thereafter sorted out and organized by species into Total number of Animals Slaughtered (TAS), Number of Female Animals Slaughtered (NFS), Number of pregnant animals based on Foetuses Recovered (NFR) irrespective of stage of development and Number of Male animals Slaughtered (NMS).

Questionnaire retrieved were analyzed using simple descriptive statistics while records obtained from the abattoir were analyzed using GenStat (2005) analytical package using general linear model of complete randomized block design.

RESULTS AND DISCUSSION

Livestock production and associated processing activities are important resources for livelihood and are indices of wealth ranking in the society for the inhabitant of the semiarid zones of Nigeria. Livestock processing is a subset livestock production that provides employment opportunity to a number of people particularly butchers. Background of Butchers is presented in Table 1. Butchers vary in age group from less than twenty years (<20-yrs) to above 51 years. Youth amongst the butchers at Kano abattoir were the main source of labour. The number increased with increase in age from 20-31 years but declined thereafter. All the respondents were male butchers, mostly married (76.67%). The respondents have acquired diverged levels of educational qualifications,

which include adult education, quoranic education, primary education and secondary level of education. However, those that have acquired secondary education were higher.

Processing activities that provide means of living to a number of butchers include slaughtering, flaying, evisceration and washing of the different mutton cuts. Evisceration was the major activity (50%) engaged by most of them. The respondents were always present at the abattoir as shown by 100% regular attendance in Table 2. The study revealed that the butchers slaughtered high number of pregnant sheep and goats daily. Number of small ruminant (sheep and goats) slaughtered per day was above 500 (Table 2), of these number more than 11 pregnant animals were slaughtered daily. The slaughter of pregnant female animals was carried out all year round with the exception of late dry season (February to April) period when the female animals slaughtered were not pregnant. Female animals slaughtered in early wet season (May to July), late wet season (August to October) and early dry season (November to January) were pregnant. The records showed slaughter of pregnant small ruminants was more prominent during the early wet season. Our findings were in agreement with report by Halle *et al.* (1997) and Sanusi *et al.* (2006). The butchers associated the causes of slaughtering pregnant animals to urgent financial needs of the owners, which was also the opinion of Sanusi *et al.* (2006). Also, ignorance of the physiological status of the animals by owners, routine culling of undesirable animals and in some cases ill-health were the causes for slaughter of pregnant sheep and goats in Kano main abattoir. Cases of ill-health are in agreement with the findings of Wekhe and Yahaya (1999). According to the reported, the pattern of disease infection was often most severe during the rains which coincides with the active breeding season for most animals, due mainly to availability of pasture and consequently high pregnancy rates.

The structure of sheep and goats slaughtered at Kano abattoir is shown in Table 3, indicated significantly higher ($p < 0.05$) number of goats were slaughtered relative to sheep. Also, significantly higher ($p < 0.05$) number of pregnant ewes were slaughtered compared to does which agreed with earlier report by Garba (1992). The findings of

this study showed 34.3% of the sheep and 26.1% of the goats slaughtered daily in urban abattoir were pregnant. Data obtained in this study was however, lower than the 57.9% does and 61.4% ewes reported by Sunusi *et al.* (2006) but above the 6.4-16.8% values reported by Taiwo *et al.* (2006) for small ruminant, 6.3-20% for cows (Abiola *et al.*, 1999; Oyokunle *et al.*, 1992) and 24.06% for camel (Ataja and Uko, 1994). The present finding on the slaughter of more pregnant ewes relative to their does counterparts is paradoxical why this is so, since the data showed more does were slaughtered than ewes. Perhaps, it could be attributed to the Hausa production system where animals are allowed to scavenge in the dry season during the day, housed at night and in the morning and evening, they are fed supplements of assorted cereal bran, cowpea haulms and husk, groundnut haulms and other house hold waste. This could perhaps, serve as steady but slow steaming up of the animals which could keep them on high plane of nutrition satisfactory for turbing and conception. Contrary, to this goats barely come back home to receive any form of supplements, which, perhaps, could be attributed to the ability of goats to trek long distance away from home to browse.

While butchers claimed to observe some dead foetus daily as a result of the slaughter of pregnant animals, the primary data generated showed one out of every 3 ewe or 4 does slaughtered is pregnant. The result was higher than the average of one foetus recovery in every 12 ewes or 6 does obtained by Sanusi *et al.* (2006). From the data obtained it could be estimated that 0.24 million lambs and 0.21 million kids would be destroyed annually due to the slaughter of pregnant animals in Kano only. These values are colossal for the country since the data being reported was generated from one location. However, the values were lower than the annual loss of foetus (3.86-5.2 million) estimated by Sanusi *et al.* (2006).

CONCLUSION

Therefore, the level of destruction of foetus through slaughter of pregnant sheep and goats in the urban abattoirs indicate a serous threat to the future of small ruminant population. It is suggested that antemortem inspection should be conducted to identify pregnant animals for restriction or advice against their slaughter. Also, legislation prohibiting the slaughter of pregnant animals should be enforced. Cooperative Organization or NGOs could organize the purchase of potentially healthy pregnant animals for rearing and empower their members (widows and young) with skills in livestock production which would create employment and enhance income generation.

Table 3: Structure of open and pregnant flocks of sheep and goats slaughtered daily (mean) in Kano, an urban abattoir of the semi arid zone of Nigeria

Parameters recorded	Sheep	Goats	LSD
Daily animals slaughtered	267.6 ^b	324.6 ^a	30.96
Female animals slaughtered	209.4	226.0	27.76
Male animal slaughtered	58.5 ^b	98.8 ^a	12.83
Pregnant animals	71.8 ^a	59.0 ^b	11.41

Means with different letter superscripts within the same row differ significantly ($p < 0.05$)

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REFERENCES

- Abiola, S.S., C.O.N. Ikeobi and M.A. Dipeolu, 1999. Bovine wastage in abattoir and slaughter slab of Oyo state, Nigeria. *Trop. J. Anim. Sci.*, 1: 143-148.
- Ataja, A.M. and B.T. Uko, 1994. Slaughter of the Single-humped Camel (*Camelus dromedarius*) for meat at the Sokoto abattoir, Nigeria. *Nig. J. Anim. Prod.*, 21: 181-185.
- Garba, H.S., W.A. Hassan and B.T. Akingbemi, 1992. Foetal Wastage through Slaughtering of Pregnant Cattle at the Sokoto Abattoir. *Trop. Veterinarian*, 10: 123-126.
- GenStat, 2005. GenStat Discovery Edition 2. GenStat Procedure Library Release 4.24DE. Lewis Agricultural Trust. (Roth Amsted Experimental Station).
- Halle, P.D., J.N. Shelleng, M.A. Tizhel and W. Nafaranda, 1997. Abattoir foetal wastage through indiscriminate slaughter of pregnant animals in Adamawa State. *J. Applied Sci. Manage.*, 1: 43-44.
- Jahnke, H.E., 1982. Livestock production systems and livestock development in tropical Africa. Keiler Wissenschaft/Suer and Vaug.
- Oyekunle, M.A., O.O. Olubanjo and O. E. Fasina, 1992. Foetal waste in abattoirs and its implication: Situation report from Ogun state of Nigeria. *J. Anim. Prod. Res.*, 19: 57-63.
- RIM (Resource Inventory and Management Studies), 1992. RIMS Report, Federal Department of Livestock and Pest Control Services. Federal Ministry of Agriculture and Natural Resources. Garki Abuja, Nigeria, pp: 440.
- Sanusi, M., M. Abubakar and B. Luka, 2006. Incidence of Foetal Wastage in Ruminant Animals Slaughtered at Bauchi and Jos Abattoirs. In: Muhammad, I.R., B.F. Muhammad F. Bibi-Farouk and Y. Shehu (Eds.), Application of Appropriate Technology in Overcoming Environmental Barriers in Animal Agriculture in Nigeria. Proc. 31st Ann. Conf. Nig. Soc. Anim. Prod., pp: 102-106.
- Taiwo, B.B.A., F.A. Aluko and O.A. Olufowobi, 2006. Reproductive Wastage in Some Urban Abattoirs in Ogun State. In: Muhammad, I.R., B.F. Muhammad F. Bibi-Farouk and Y. Shehu (Eds.), Application of Appropriate Technology in Overcoming Environmental Barriers in Animal Agriculture in Nigeria. Proc. 31st Ann. Conf. Nig. Soc. Anim. Prod., pp: 140-142.
- Wekhe, S.N. and M.A. Yahaya, 1999. Incidence of reproductive abnormalities among slaughter house animals in Port Harcourt city. *Trop. J. Anim. Sci.*, 1: 175-180.