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Incidence of Fetal Wastage in Cattle Slaughtered at the Kumasi Abattoir, Kumasi, Ghana

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Abstract: There had been dearth of information on the level of fetal wastages in slaughtered cattle in West African countries other than Nigeria; this study evaluates level of fetal wastage in cows slaughtered at Kumasi abattoirs in Ashanti Region, Ghana. Out of a total of 154,719 cows slaughtered, 28,410 (18.4%) were pregnant. The ratio of slaughtered cow and those pregnant was 2.3 while 41.9% of cattle slaughtered were cows. There was rise in fetal wastages over the years with 2009 having the highest, while there was rise in December of most of the years and this may be related high demand for meat during the festivals and ceremonies during this period. The results indicated a high level of slaughtering of pregnant cows in the abattoirs studied. There is need to advocate for routine veterinary checks and interventions among trade animals in order to reduce the high level of fetal wastage in the country. It also gave insight to need for strategic planning and decision-making on animal food security in Ghana.

Key words: Fetal Wastage · Cattle · Pregnant · Slaughter · Ghana

INTRODUCTION

The Ghana human population is over 22.7 million and the need to provide animal protein for the populace with less than 2 million cattle population continued to be a serious challenge. Cattle is one of the main sources of animal protein for the populace, however, its production is often hindered by diseases and inadequate nutrition. These hindrances are more pronounced and felt by the resource-poor traditional farmers in the Northern regions of Ghana that largely depend on livestock for their livelihood. With the obvious slow growth rate of domestic livestock production as observed in some West African countries, to cope with the per capita requirements often attracts movement and trade of cattle within the subregion and undesirable practices including slaughtering of breeding stock and pregnant animals is common [1-5]. The urge to bridge of the gap in protein supply often results in wastage of fetuses and reproductively sound dams with a resultant negative effect on livestock growth capacity [6].

The reports on slaughtering of pregnant animals resulting in fetal wastages abound in most countries of the world, Iran [7], Zambia [8], Ethiopia [9] and Nigeria with respect to camels [10], small ruminants [11-13] and cattle [1,5,14,15]. This practice has worsened the supply of animal protein to the populace.

One of the important contributory factors identified, had been the dry season of the year in sub Saharan Africa which often is associated with forage scarcity which in turn lead to increased sales of aged cows and less productive females in the extreme period to meet house hold cash needs [16]. Often than not, the sales at this period hardly consider the fertility status than survival of the herd.

There had been various reports on the level of fetal wastages in slaughtered cattle in Nigeria with dearth of information on such in other West African countries. This dearth of information in West Africa adversely affects the strategic planning and decision-making on animal food security in the subregion.

With less than 2 million cattle population in Ghana [17], the need to evaluate the level of fetal wastage in slaughtered cattle in Kumasi abattoir, which receives cattle from Brong Ahafo, the northern regions of Ghana and from neighboring countries like Burkina Faso, Mali and Niger is expedient.

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MATERIALS AND METHODS

Description of Study Area: This study was carried out between 2009 and 2012 at the Kumasi abattoir. The Kumasi Abattoir is located at 6°39'36.6"N Latitude and 1°36'15.4"W Longitude, in the Kumasi city of Ghana.

The abattoir system had been earlier described by other authors (18). Cattle meant for slaughter at the Kumasi Abattoir are transported from different regions within Ghana such as Yeji in Brong Ahafo and the northern regions of Ghana and from neighboring countries like Burkina Faso, Mali and Niger. Slaughtered cattle were inspected by a trained veterinary technical officer who is supervised by a veterinarian and the pregnancy status of the cows was often not determined.

Data Collection: Data on the total number of male and female cattle slaughtered, pregnant cows slaughtered and number of the fetuses found was collected on a daily basis. The results were analyzed to determine the prevalence of pregnancy in the slaughtered cows and the ratio of cows to bulls slaughtered.

RESULTS AND DISCUSSION

Table 1 revealed yearly trend of fetal wastages at Kumasi, abattoir, 2009 had the highest peak of wastage and there was significant decrease till 2011 with another increase in 2012.

Table 2 shows the monthly increase of fetal wastage at the abattoir, there was a rise in the months of May to July with the highest peak in July. There was also a slight rise in December.

The result of this investigation shows that 18.4% of slaughtered cattle are pregnant in Ghana that is, for every two slaughtered cow, one could be pregnant; this showed the extent of reproductive loss.

The possible reason for the peak in fetal wastages in 2009 and subsequent fall could not be easily ascertained but often cattle are sold to meet the need for money to send children to school and meet some other domestic needs. The rise in the months of May-June shows that the rains are just about to begin and these periods are usually characterized by drought, hunger which expose animals to poor nutrition, diseases especially gastrointestinal

Table 1: Incidence of fetal wastage in cattle slaughtered at Kumasi Abattoir between 2009-2012

Year	Total cattle slaughtered	Total bull slaughtered	Total cow slaughtered	% of cow slaughtered	No of fetus condemned	% of cattle pregnant	Slaughtered cow: pregnant cow ratio
2009	82115	43205	38910	47.4	8012	20.6	2.30
2010	93736	56935	36801	39.3	7185	19.5	2.02
2011	95873	57641	38232	39.9	6329	16.6	2.40
2012	97355	56579	40776	41.9	6884	16.9	2.5
Total	369079	214360	154719	41.9	28410	18.4	2.3

Table 2: Monthly incidence of fetal wastage in cattle slaughtered at Kumasi Abattoir between 2009-2012

Months	2009	2010	2011	2012	Total
January	565	712	387	522	2186
February	536	588	469	526	2119
March	588	683	531	551	2353
April	473	591	445	544	2053
May	594	614	439	612	2259
June	683	580	496	505	2264
July	839	865	644	562	2910
August	833	600	650	604	2687
September	801	549	623	608	2581
October	738	478	563	568	2347
November	696	460	521	618	2295
December	666	465	561	664	2356
Total	8012	7185	6329	6884	28410

parasitism and as such to forestall losses due to natural death or diseases farmers prefer to sell their animals. Many authors have reported that most cattle sold for slaughter during the dry season were females [1, 5]. The rise in wastage in December of most of the years may be related to the festivals and ceremonies during this period.

The implication of this finding was that 18.4% of the future productive herd is lost to this practice which will adversely affect the development of cattle production in Ghana. The higher percentage observed in this study could be associated with lack of enforcement of legislation against slaughtering of pregnant cows. The percentage of fetal wastage 18.4% in this study was higher than those obtained by Fayemi *et al*. [19] {8.2%} and Nwakpu *et al.*[20] {9.15%}.

The findings in this study also showed that one fetus was wasted for every two to three cows slaughtered. This ratio is higher than the findings of Fayemi *et al.* (18) {1:14} at four abattoirs in Ogun State and Nwakpu *et al.* [20] [1:11] in Ebonyi State of Nigeria. So also that obtained in Cameroon by Ndi *et al.* [21] {1:4}. This showed that the fetal wastage is quite alarming and effort should be geared towards instituting routine veterinary checks including pregnancy diagnosis at cattle control posts and abattoirs. In addition adequate infrastructural facilities including ultra scanners that will ensure adequate pregnancy diagnosis should be provided to aid quick detection of pregnant animals during inspection. Drastic efforts should be to increase future domestic meat supply in order to reduce or halt the incidence of slaughtering pregnant cows.

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