



AN APPRAISAL OF STREPTOTHRICOSIS OCCURRENCE IN CATTLE IN NIGER STATE

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Summary

This study was carried out based on the three geographical zones of Niger State. The criteria for the zoning were agricultural interests and tribal affiliations of the people. Four Local Government Areas were considered for each zone. 7,378 heads of cattle, 654 sheep and 922 goats were encountered in this study. Among the diseases of economic importance encountered in this study were; skin lesions, gastro intestinal helminthiasis and Trypanosomiasis which showed the highest prevalence rate through out the state particularly in the riverine areas. Incidence rates for both seasons were determined for streptothricosis in each of the zones. The highest incidence rates determined for wet and dry seasons were 9.6% and 5.7% respectively. The wet season was seen to record a higher incidence of streptothricosis than the dry season.

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Introduction

Animal protein deficiency remains an important national problem. In recent times, Niger State has been witnessing a tremendous increase in livestock population as a result of the available grazing resources and favourable environmental conditions. However, streptothricosis infection is prevalent in the state leading to production losses particularly in meat and hides of animals.

Livestock distribution within Niger State is quite variable because of the vegetational pattern and environmental influences on the number of facilities such as dams and grazing areas. The concentration of forest zones along major routes towards the southern part of the state influences the prevalence of disease patterns such as streptothricosis and other diseases of economic importance like trypanosomiasis.

Since Streptothricosis adversely affects meat, milk and hide production, there is the need to focus attention on the epidemiology of this condition within cattle population. This is because desertification which constitutes one of the world's current environmental effects on livestock production influences the influx of cattle from the far north into the state.

This study was therefore design to examine cattle distribution in Niger State in relation to the incidence of Streptothricosis in cattle.

Materials and methods

A survey of streptothricosis among cattle in Niger State was carried out within a period of one year. The state was divided into three geographical zones in order to facilitate data collection.

105 questionnaires were randomly administered by personal contact to selected livestock farmers residing at a distance of 10km radius. Four Local Government Areas were selected for study in each of the three

geographical zones. They are as follows: Zone A (Lavun, Mokwa, Agaie and Lapai) while Zone B (Suleja, Bosso, Paikoro and Rafi) and Zone C (Borgu, kontagora, Magama and Rijau). Giving a total of twelve (12) Local Government Areas respectively.

Data on skin disease occurrence with a particular emphasis on streptothricosis were collected. Data on diseases of economic importance were also collected. This implied those conditions that causes production losses with corresponding high cost of treatment (Table 2.0).

Incidence of streptothricosis in both wet and dry seasons were also determined in the three geographical zones (Table 3.0).

At the end of the survey, completed questionnaires were analysed using analysis of variance for the purposes of drawing adequate scientific explanation.

Results and Discussion

Table 1.0 shows the representative livestock distribution physically encountered and the number declared by the respondents based on a 10km radius within the point of observation. This is in agreement with an earlier finding (Fasanya, 1989), that the greatest concentration of livestock population was around flat lowland areas with abundant resources such as rivers, earth dams and grazing grounds. However, these tend to favour the proliferation of diseases and parasites. The existing water bodies and natural pastures found serve as breeding grounds for quite a number of disease causing organisms.

The percentage of cattle in the three geographical zones of this study represent 0.63% of the estimated cattle population of the state while this was 0.09% each for sheep and goats (Table 1.0). The

population outnumbered the small ruminants suggest that a lot of economic values are derived from livestock production.

Distribution of the various disease conditions measured showed that skin lesions in cattle were prevalent in all the zones (Table 2.0). This agrees with the findings (Ikpeze, 2005) that an association between ticks bite and dermatophilosis has been established in which there is 12% prevalence of infection in Nigeria's estimated 10.8 million cattle.

Occurrence of streptothricosis was higher during the wet season than the dry season (Table 4). These results agree with results reported by literature by other workers (Oduye and Lioyd, 1971, Bida 1975, Maina, 1984 and Jones, 1990).

Analysis of variance indicates that there were no significant difference ($P > 0.05$) in the occurrence of streptothricosis in the three zones of the state (Table 4.0). This may be as a result of certain factors such as rainfall, vegetation and farming activities. During rainy season the herdsmen tend to move North wards where water and pasture are available. As a result of migrational tendency, there is possibility for the spread of the disease across the state.

Conclusion

It could be concluded from this study that Niger State has a lot of potentials for livestock production which includes among others; availability of grazing lands, large water bodies, conducive weather conditions and influx of livestock from semi arid regions of the country. However, streptothricosis and other skin related diseases seem to pose a lot of challenges in production efforts.

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