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Performance and Routine Practices on Camels (*Camelus dromedarius*) at 'Dan Aunai Grazing Site, Dutsi Local Government Area of Katsina State, Nigeria

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Abstract

The study was designed to explore the performance and routine practices by the camel pastoralists in the area. An observational study was used to retrieve information. However, camels were monitored at the grazing site during the study. From the results, all of the respondents were males and majority were aged people. There was also a grazing constraint during the rainy season due to crop production as such little difficulty was encountered. Traditional system of management is the pre-dominant way of keeping camels. Other routine practices such as castration and clipping of hair were not in practice by the pastoralists. In addition, pastoralists provided water to camels if little dehydration was observed. There was little infection during the rainy season especially from ecto-parasites and or *Dermatophilosis*. Little veterinary medication was offered with majority adopting ethno-veterinary practice in case of an infection. Conclusively, with little intervention of training through extension services, the method of production and practices will improve.

Keywords: Camel, *Camelus dromedarius*, grazing site, ecto-parasites

Introduction

Camels were first domesticated by native people more than 5,000 years ago. These hardy animals have proved vital to the survival of humans in the arid and semi-arid areas. They are kept largely by pastoralists under traditional system of management (FAO, 2001). In recent times, camels are no longer wild with the trend of global changes. However, camels are now considered as one of the most docile animals while in some few cases, they may still be wild. The primary reason for keeping dromedary camels is to sustain the inhabitant of arid and semi-arid regions (Kohler-Rollefson, 1991). Management of camels varies from country to country and from one place to the other. In most of the West African countries, camels are used as multipurpose animals such as drought, transportation, meat, milk, racing among others. In some areas, camels are forced to feed on desert shrubs that do not meet their need of feed (Gabans, 2002). They have to walk long distances in search of water and better pastures. They may become emaciated due to feed shortage but however, meat and milk production only become less with changes in season. In these areas, many harmful insects (flies, mosquitoes etc) and ticks spread (Wilson and Bourzat, 1984). In spite of that, this study was designed to exploit the challenges of camel keeping and management as practiced by the pastoralists under traditional system at the grazing site.

Materials and Methods

Study area: The study was conducted at Dan Aunai grazing site in Dutsi Local Government Area of Katsina State. Katsina State has hot and dry climatic conditions for most of the year in the northern parts of the State. The hottest months are March to May with temperatures ranging from 23°C to 42°C. The annual rainfall varies from 700mm to 1000mm in the southern part of the State and less in the northern part. Rainy season is usually from June to September (KTARDA, 2001).

Type of the Study: The study lasted within three (3) months. Observational study was used and fifteen (15) questionnaires were administered. During the study, camels were followed to the grazing site with guidance of the pastoralists. The authors also took part in some of the management practices.

Results and Discussion

Biodata of the respondents: The data in figure 1, all of the respondents were males. Majority (86.67%) of the respondents were married and only (13.33%) were found to be single. Majority (66.70%) fell between 51 and 60;

most (20.00%) were between the age of 41 – 50 years and only (13.30%) fell within the ages of 30–40 years respectively. Ghude *et al.* (2010) reported that camel production in Northern Nigeria is a predominant occupation of aged people. Majority (73.33%) attended Qur'anic school, most (20.00%) attended primary school, only (6.67%) attended secondary school and none attended tertiary education. According to FAO (2009), majority of pastoralists in the tropics did not attend formal education but had possessed basic religious knowledge and acquired husbandry experience over the years.

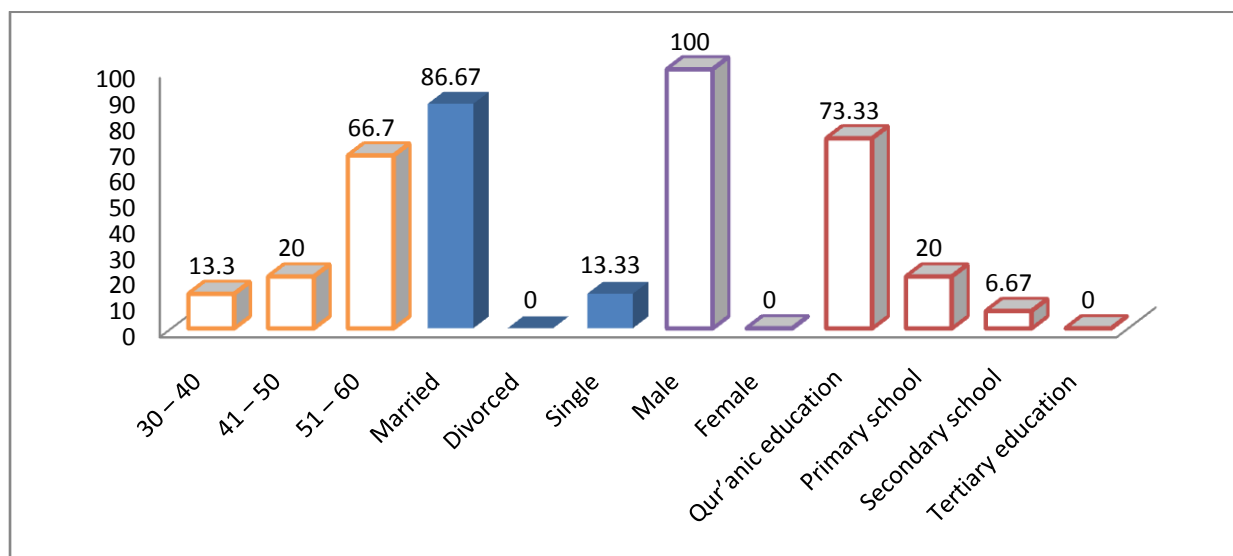


Fig. I: Biodata of the respondents

Performance of Camels: Camel performance is one of the major contributing factors in the production practices in which it determines the productivity. From the data in figure II; majority (66.70%) of the respondents encountered difficulties in feeding camels during the rainy season especially in the Sudan Savannah vegetation zone despite the availability of green fodder because of crop production. This is in agreement with the report of Ghude *et al.* (2010). Kohler–Rollefson (1991) reported that camels survive well in an area where there is relatively little or no rainfall. From this report, majority (86.70%) of the respondents indicated that rainfall severely affects the performance of camels during the season and only (13.30%) indicated that camels may still survive under rainfall but with little productivity. Majority (86.70%) of the respondents kept camel under extensive/traditional system of management and only (13.30%) of the respondents kept their camels under semi-intensive system and none kept their camels under intensive system of management. FAO (2006) reported that in the last hundreds of years, most of camel production practices were purely traditional.

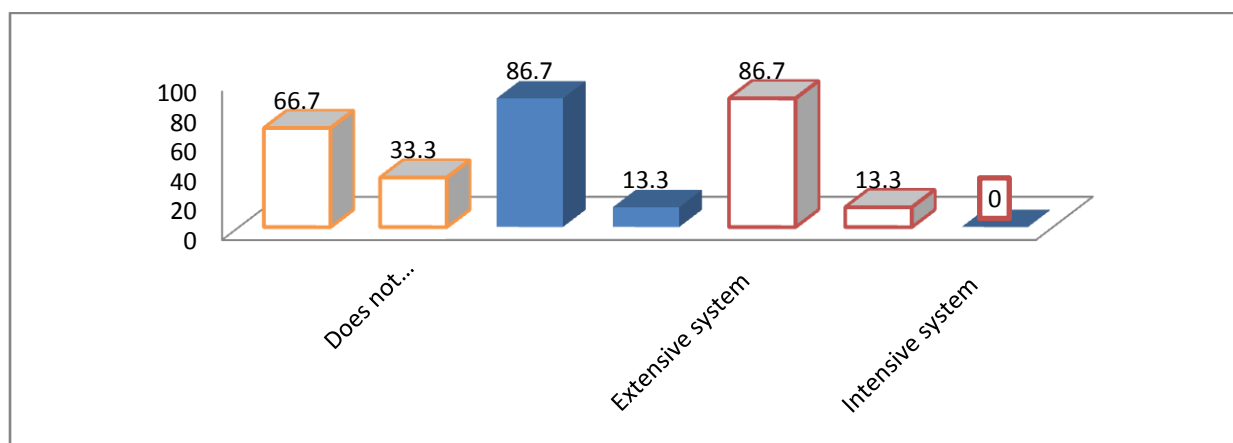


Figure II: Performance of camels

Routine Practices in Camel production: Figure III reported routine practices in camel production. All of the respondents did not castrate camels. According to the reports of Musa *et al.* (1993), castration of camels is not a routine practice in camel production. Clipping of hair may be a practice especially on the sports animals such as horses and pets. All of the respondents interviewed did not clip the hair of their camels. Quality feeds and water available are the most important requirements for successful livestock production. None of the respondents provided water to their camels on daily basis. Majority (53.40%) gave water at an interval of dehydration and only (20.00%) indicated the intervals of two weeks.

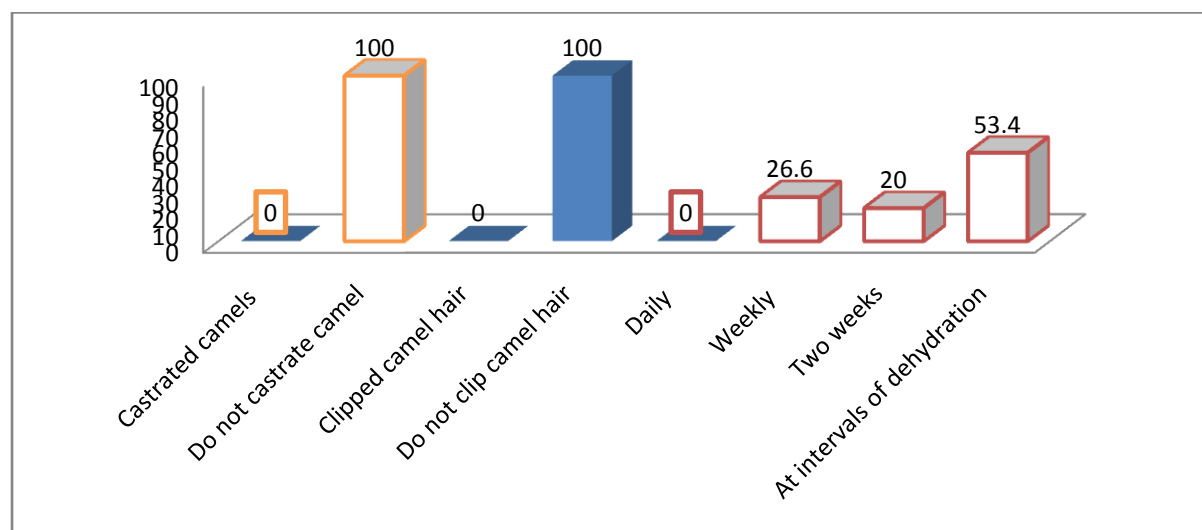


Fig. III: Routine practices in camel production

Camel Disease: Health, production and management of camels in Northern Katsina State, Nigeria are facing a serious set-back as a result of inadequate facilities to make the system of production a sustainable one (Ghude *et al.*, 2013). From the reports in Figure IV, majority (86.70%) of the respondents interviewed indicated that camels were more susceptible to diseases during rainy season and only (13.30%) indicated no disease infection during rainy season. However, majority (33.30%) of the respondents indicated the prevalence of endo-parasite infection which included worms; most (26.70%) indicated other infection which included injury, coughing, among others and only (20.00%) indicated ecto-parasites and *Dermatophilosis* respectively. Majority (53.40%) indicated the use of Ethno-Veterinary Medication. Most (33.30%) used veterinary drugs in an event of serious infection while only (13.30%) indicated using other sources of treatment respectively.

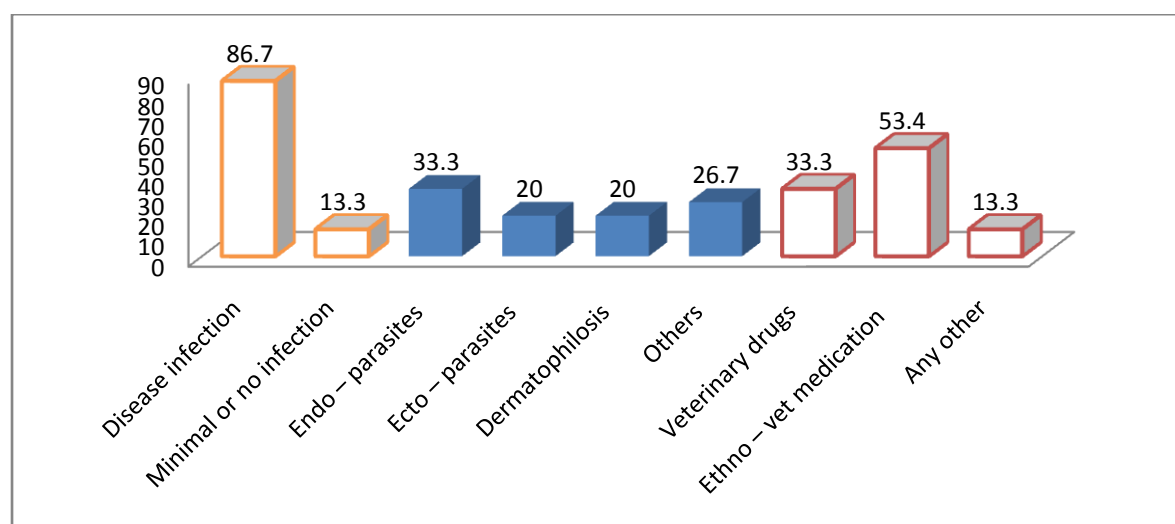


Fig. IV: Prevalence of camel disease

Conclusion

Findings from the present study may be used as baseline information in camel research and development. However, the pastoralists listens to the approach of new technological innovation in animal production but the unavailability of adequate agro-livestock extension services to deliver causes a serious set-back. The reports also reveal the practices engaged by the pastoralists as a possible way of improving camel production with little intervention. It is concluded that the pastoralists have the listening ears and can adjust to modern practice.

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