

Camel Owners And Perception Towards Management Practices At Butanaarea, Gaderif State, Sudan

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Abstract: The current study was conducted at different locations in Butanaarea ,Gaderif state, Sudan.60 questionnaires were used to collect information from camel owners .The study aims to assess perception of camel owners towards rangelands management practices .65 % of camel owners rearing camels as life manner.The results revealed about 66 % of the respondents are profession in camels rearing. On the other hand about 46 % of camel owners adopted the nomadic system.Moreover 63 % bred camel for milk and meat. The majority of camel owners kept breeding male camels from the same herd (90%). the improvement methods of herd are based on three ways, one of them is selection according to breeding history which practiced by 66.7 % followed by productivity 25 % and morphological features 8.3 %. The improvement purposes focused on both milk, meat about 78.3 % .The concluded that most of the camel's owner kept breeding male camels from the same herd. The priority of camel owners for improvement was a dual purpose meat and milk production.

Keywords: camel owners, life manner, Racing, improvement methods, breeds

Introduction

Sudan is well known as one of the largest camel populated countries in the world, the total camel population in Sudan is estimated to be more than 4.8 million head (MARFR, 2012), the majority of this number is kept by migratory pastoralists "Abbala" in arid and semi-arid zones of Sudan, where camel pastoralists prevail with limited resources in subsistence production systems. Eisa and Mustafa (2011) mentioned that Sudan had many production systems including: traditional nomadic system, transhumant or semi-nomadic system, sedentary or semi-sedentary system and intensive system which is limited to racing and dairy camels. Camels in most pastoral societies are milked by men (one or two herdsman) and to prevent calves from suckling at pasture during the day it is common among the nomad, to tie up one or more teat with special strings. Camels in the Sudan and elsewhere are classified as pack (heavy) and riding (light) types according to the function they perform and probably as a result of selection applied for these traits by the various camel-keeping tribes. This paper aim to assess of camel owners and perception towardsmanagement practices at Butana area, Gaderif state, Sudan

Material and methods

The study area:

The current study was conducted in different locations in Butana area (Gadarif, Showak (Sharif Hassab Allah, Um-gargoorand Alsobagh). The Butana plain is a semiarid clay region that covers most of the present Kassala and Gedaref States in Eastern Sudan. It lies between latitude 13° 40' and 17 ° 50' North and longitude 32 ° 40' and 36 ° 00' east.

Data collection: A set of detailed structured questionnaire was used to collect information from a total of 60 camel owners in different locations in Butana area. The questionnaire was designed to obtain information on general household information, relation with camels and life mode of camel owners, purposes of keeping and rearing camels, breeding practices, milk production and milking practices, feeding and watering, constrains of camel production and veterinary services.

Data analysis: The collected household data were summarized and analyzed using Statistical Package for Social Sciences, (SPSS, and version 16.0). Descriptive statistics such as percentage and frequency were used to present the results.

Results and discussion

1. General household information

The most of camel owners were above 40 years old followed by those of 31 – 40 years old, while those of 21-30 years old were less than 2% (table 1). This study revealed that the illiterate camel owners was 65 % which is agreed with the results found by Darosaand Agab, 2005 .The study showed that the majority of camel owners considered both rearing animals and farming to be their main activity, followed by those rearing animals and then those considered that the farming was their mainactivity this finding is disagreed with (Ishag and Ahmed, 2011) it could be due to the nature of the study area (Butana).

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Table (1): Age classes of camel owners at Butana area Gaderif state, Sudan

Age	No	%
21-30 years	1	1.7
31-40 years	20	33.3
more than 40 years	39	65.0
Over all	60	100.0

About 65 % of camel owners were illiterate followed by those who completed primary school and khalwa while the lowest percentage recorded by high secondary school (5%), Shows in table 2.

Table (2): Education level of camel owners at Butana area Gaderif state, Sudan

Education level	No	%
Illiterate	39	65.0
Khalwa	7	11.7
Primary	11	18.3
High secondary	3	5.0
Over all	60	100.0

The main activities of respondents said that 60 % of them practice rearing camels and farming, while only 38.3 % said rearing camels, provided in table 3.

Table (3): Main activities of camel owners:

Type of activity	No	%
Rearing Animals	23	38.3
Farming	1	1.7
Both	36	60.0
Over all	60	100.0

Moreover the majority of camel owners had experience more than 20 years 71.7 % followed by about (22 %) those who have experience between 10 to 20 years while 6.7 % have less than 10 years of experience show in table 4.

Table (4): Years of experience of camel owners

Experience (year)	No	%
less than 10 years	4	6.7
10-20 years	13	21.7
more than 20 years	43	71.7
Over all	60	100.0

and 10 % of them reared all animals types (camel, cattle, sheep and goat) followed by those who owned camel, goat (3.3%) and less than 2 % who owned camel, cattle presented in table 5.

Table (5): Livestock species in the studied area.

Livestock species	No	%
Camel	22	36.7
Camel, cattle	1	1.7

Camel, goat	2	3.3
Camel, sheep	29	48.3
All animal types	6	10.0
Over all	60	100.0

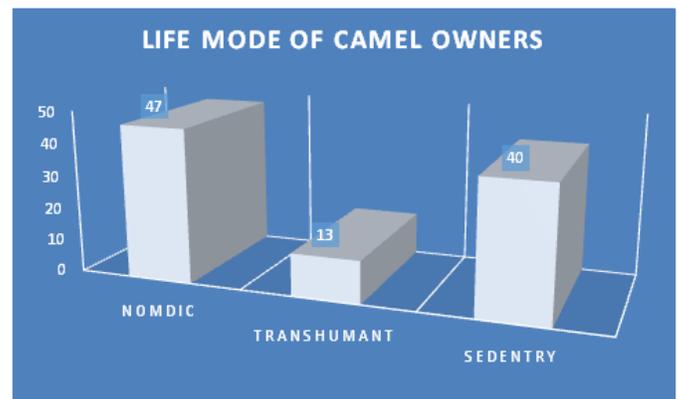
2. Relation with camel and life mode of camel owners:

The results showed that about 66 % of the respondents are profession in camels rearing, followed by amateur and investor which have the 2nd and 3rd rank in camel relation, whereas herd man (camel man) recorded 5 % in table 6.

Table (6): Relationship between owners and camels.

Type of Relationship	No	%
Profession	40	66.7
Amateur	10	16.7
Investor	7	11.7
Herd man	3	5.0
Over all	60	100.0

On the other hand about 46 % of camel owners adopted the nomadic system, followed by those who adopted the sedentary system (40%), while transhumant system adopted by 13 % of camel owners in figure 1.



Figure(1), life mode of camel owners

3. Purposes of keeping and rearing camels:

The results revealed that 65 % of camel owners rearing camels as life manner while 18.3 % rearing it for economic facilities followed by 15 % who keep camels for saving money, while less than 2 % as a social mode shown in figure 2.

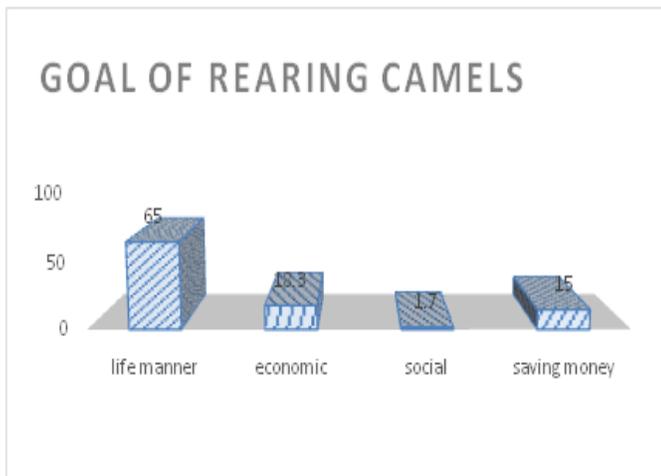


Figure (2): Goal of rearing camels.

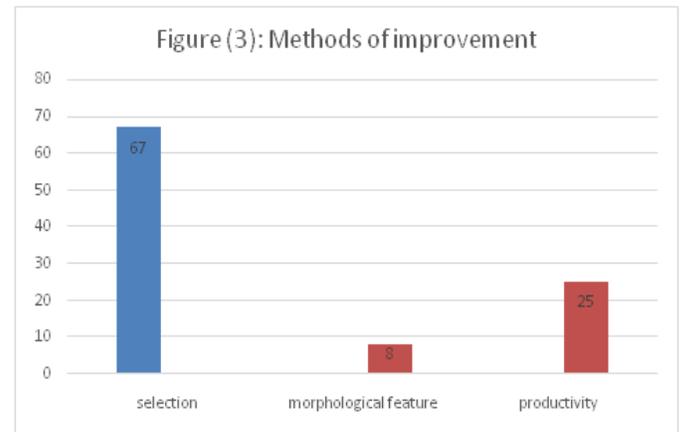
Moreover about 7 % of camel owners bred camel for racing but the majority 63 % bred camel for milk and meat, while 30 % bred camels for all mentioned purposes in table 7. The results showed that rearing camel for their milk and meat is the first priority of the camel owners these results were not difference from the findings of (Ishag and Ahmed, 2011).

Table (7): purpose of rearing camels

Purpose	No	%
Racing	4	6.7
Milk, meat	38	63.3
All mentioned	18	30.0
Over all	60	100.0

4. Breeding practices:

The results showed in figure (3) that the improvement methods of herd are based on three ways, one of them is selection according to breeding history which practiced by 66.7 % followed by productivity 25 % and morphological features 8.3 %. On the other hand the majority of interviewers improved their camels for both meat and milk production. These findings are similar to those of Algayliet al (1998) also the results revealed that the main method of improvement based on breeding history (66.7 %)followed by productivity and morphological feature this finding is not far than those of (Ishag and Ahmed, 2011) who found about half of the interviewers select their camels according to the best breeding camel.



The majority of camel owners kept breeding male camels from the same herd (90%) while the rest used male from different herd in table 8. The results showed that most of camel owners (90 %) kept the male from the same herd while the rest tend to use males from other herd, these results were in line with those of (Ishag and Ahmed, 2011) who found more than 88 % camel owners kept their male in the same herd.

Table (8): Source of breeding males

	No	%
Same herd	54	90
Different herd	6	10
Overall	60	100.00

On the other hand in table 9, showed that the majority of camel owners bred Arabi breed type (51.7%) followed by Rashaidi breed type (33.3%) and Anafi breed type (15%). The majority of camel's respondents bred Arabi and Rashaidicamels breed type 51.7%, 33.3 % respectively, this finding in accordance with those Wardeh (2004) who found Arabi camel has a wide geographic distribution in the Sudan due to its good performance for meat and milk.

Table (9): Breed types in the study area

Breed type	n	%
Arabi	31	51.7
Rashaidi	20	33.3
Anafi	9	15.0
Over all	60	100.0

The results also revealed that about 53% of owners selecting males at 6 years, followed by 7 years (41.7%) and 8 years (5%). Moreover the end age of selection was 15 years practiced by about 51%, followed by 20 years which is practiced by 41.7 while 10 years was adopted by 6.7% of camel owners in table10. The results showed that more than 93 % of interviewers select their camels in 6 to 7 years and the end age of male selection was between 15 to 20

years this findings were somewhat in line with those of (Ishaget *al.*, 2010) who mentioned that camels reach maturity (growth peak) within 7 to 9 years of age.

Table10 Age of male selection and end of male life

Age of male selection (year and %)		Age at end of male life (year and %)	
Year	%	years	%
6	53	10	7
7	42	15	51
8	5	20	42

Moreover, the improvement purposes showed in table11, focused on both milk, meat with 78.3 % then milk purpose 10 %, milk, racing 8.3 % and racing with about 3 %.

Table (11): Improvement purpose

Purpose	NO	%
Milk	6	10
Racing	2	3.3
Meat, Milk	47	78.3
Milk, Racing	5	8.3
Overall	60	100

Conclusion

Conclude that the majority of camel owners kept breeding male camels from the same herd. The improvement methods of herd are based on three ways, one of them is selection according to breeding history. Therefore studies to assess the genetic potential of camels for milk and meat production needed to use the information in management practices should be consider.

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