PDF - PERFORMANCE OF ONE-HUMPED CAMEL (CAMELUS DROMEDARIUS) FED VARYING LEVELS OF DRIED GAWO LEAVES (FAIDHERBIA ALBIDA) IN THE NORTHERN GUINEA SAVANNAH OF NIGERIA - researchcub.infoCHAPTER ONE

1.0 INTRODUCTION

There has been a trend of growing numbers of camels in theworld between 2001 and 2011 (FAO, 2013). This increase might be attributed tochanging of environment form the savannah to arid and semi-arid condition,development in camel farming, and an improved ecological image of camel farmingand products. The total camelids population in the world in 2013 was estimatedat around 25 million animals. This number is probably underestimated becausecamels are migrant animals. It is difficult to conduct a census for camels suchas the wild Australian camel population. The general estimate of the camel worldpopulation may probably be around 30 million head (Faye, 2013). About 88% ofthe camels are found in Africa, while Asia has 12%. The main concentration ofdromedary camels in Africa is in the East African countries with 80% of thetotal camel population raised under various production systems.

The most important countries with a camel population of morethan 1 million are Somalia, Sudan, Ethiopia, Niger, Mauritania, Chad, andKenya. A significant proportion (71% of total world camels) of the world camelpopulation is found in countries defined by FAO as Net Food ImportingDeveloping Countries, Low Income Food Deficit Countries hold 68% of total worldcamels and Least Developed Countries had 59% of total world camels (Kadim et.al., 2014). Nigeria in particular has about 28,000 camels (NASS, 2011) whichare concentrated in the Sahelian region of the North western part of Nigeria(FDCPLS, 1992).

The dromedary camels adopted themselves to the ecosystem ofdry and hot zone where they are subjected to hash condition in addition tosevere fluctuation in the nutritional status, which in turn affect theirgeneral performance (Wardeh, 2004). The camel possesses unique features whichmake it superior to other domestic animals in the hot and arid desertecosystem. This is reinforced by the ability of the camel to traverseconsiderable distance with much less effort than other species. Camelphysiology and special features are therefore not only of scientific interest,but are the basic substance for people who live in marginal dry land areas(Wernery, 2006). The dromedary Camels (Camelus dromedarius) like any otherherbivores animals grazing in the arid range lands are seasonally challengedwith shortage of feeds and water, both in quantity and quality. However, theyare known for their ability to survive and produce milk even during criticalperiods of dry seasons and droughts (Moaeen-ud-Din et al., 2004).

Camels are of great socio-economic importance in the livesof pastoral people living in the arid areas of the world (Bahgat, 1991). Itsunaccounted for service to the human being under harsh climatic conditions andwithin highly marginalized ecosystem continues since ancient times (Altaf,2000). Despites the growing rates of urbanization in several countries, Camelspopulation has not shown a downward trend. This fact itself speaks of theuseful role of one-humped camel (Khan et al., 1998). Camels have uniquecapabilities and characteristics, they can be milked, ridden, loaded withbaggage, eaten, harnessed to plough and used for other important agriculturaloperations, traded for goods and exhibited in the Zoo (Iqbal, 1999). Despitethe activeness of camels among farm animals, it has remained the most neglectedanimal in terms of its improvement and scientific researches (Field, 2005). Theversatility of camels to survive and perform a great role in the arid andsemi-arid regions and its unique physiological system should motivate theresearchers to study it more closely to further exploit its potentials. InKenya, camels have traditionally provided milk, meat and blood for subsistenceand have socio-cultural value among the pastoral communities (Field,

2005).Unlike other ecological zones, camels in the arid areas mainly depend onnatural native plants to meet all their nutritional requirements (Simpkin,1998, Kuria et al., 2004). In Australia, more than 80% of the vegetations inthe arid zone are consumed by camels. The animals mostly consume the freshestplant species, ignoring many other potential food plants. They also showdistinct preferences for some plant species regardless of their nutritionalsupply. During the dry periods, leaves from trees and shrubs are the majordietary components. In the wetter periods, they predominantly utilize groundvegetation of which they are mainly forbs. Grasses also serve as some dietaryfeeds at the beginning of the season when forbs have not yet grown sufficiently(Kuria et al., 2004).

The importance of animal protein especially meat cannot beover emphasized as it contributes to physical and mental development from birthuntil growth stops. Therefore, it is apparent for every human being to consumesufficient amount of animal protein as insufficient of it can lead to somenutritional diseases and reduced body resistant to diseases. There is need tomatch the growing population with sufficient amount of protein (Akinimtimi,2004). However, over the years, Nigerians have been finding it increasinglydifficult to meet their demand for animal protein foods. This has resulted inthe increasing importation of meat and milk products in recent years. Therecommended Per Capita protein intake is estimated at 85.90g, out of which34.00g should be of animal origin (Abdul Kadir, 1984). However, averageNigerian consumes between 3.25g to 8.60g of animal protein per day as comparedto the 34g recommended by FAO (2002). Compared with other developed countries(U.S.A., 64g; Denmark, 57g; United Kingdom, 54g and Germany, 49g) it is obviousthat the intake level of Nigerians is grossly inadequate. While solutions tothese problems are being sought, it is pertinent to look for other potentialsources of animal protein that will reflect the current interest in the camelas an alternative source of protein and energy. Concomitantly, camels have beenused in the countries it is found to substitute for other domestic stock as asource of meat and milk (Akinmutinin, 2004).

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