

A note on animal power and donkey utilisation in Nigeria

by

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Abstract

There are about 800,000 donkeys in Nigeria, mostly used for carrying loads. Constraints to donkey use include their low-carcass value and the non-availability of appropriate equipment. Suggestions for improving donkey utilisation include: more research to develop improved harnesses and donkey drawn implements, updating of curricula and improved training for extension staff on the use and management of donkeys.

Introduction

Nigeria has a population of approximately 100 million people with an annual growth rate of 3.2%. Almost 80% of the population live in rural areas earning their living from agriculture. Of the cultivated area of 8.75 million hectare, 5.5% is cultivated using draft animal power, 8.5% using tractor power and the remaining 86% by manual labour (FACU, 1996). The main food crops are grains in the north and tubers in the south. The average farm size is less than 2 ha. The majority of farmers practice mixed cropping and this hinders agricultural mechanisation.

The use of animal traction in Nigerian farming systems dates back to 1922 in Daura, Katsina State. The 'mixed farming system' introduced by the British colonialists involved farmers raising both crops and livestock, using oxen or bulls for draft work. Numbers of work bulls rose gradually from just less than ten in 1928, to 1800 in 1940, 7000 in 1950 and 36,000 in 1965 (Musa, 1990). There was then a very rapid period of expansion, resulting in 200,000 work bulls in 1980 and perhaps over one million now. The use of work bulls is most common in Katsina, Zamfara, Sokoto, Kebbi, Jigawa, Kano, Borno, Yobe, Adamawa, and Bauchi States.

Problems facing animal traction farmers

Lack of credit is a major constraint to smallholder farmers. Agricultural extension programmes make farmers aware of improved technologies, but farmers lack the necessary credit to adopt them.

Farmers may encounter too much bureaucracy and cannot meet the collateral requirements of financial institutions. Credit is available from state agricultural development projects with draft animal power components, national livestock development projects, some commercial banks and religious organisations.

Most animal traction farmers in northern Nigeria are not animal rearers. Work animals are not readily available and are very expensive. Few implements are used, apart from the Emcot ridger, and this limits the number of tasks that animals can be used for. Most farmers cannot afford to buy concentrates for work animals. The farmers rely mostly on local herbs (eg, mahogany for de-worming) to treat animal health problems.

Utilisation of donkeys in Nigeria

The donkey population of Nigeria is about 800,000 (FAO, 1989). In the 1970s the Institute of Agricultural Research (IAR) of Ahmadu Bello University, Zaria, conducted studies to evaluate the use of donkeys for tillage and carting. Donkey drawn implements were obtained from Sismar in Senegal and harnesses were made at the National Chemical Leather Research Institute in Samaru. A prototype donkey cart was built by IAR.

Preliminary results revealed that donkeys could be used for carting and for weeding, planting and ridging on light sandy soils. It was shown that donkeys could pull about one fifth of their weight for 3–4 hours a day and could deliver about one quarter of a kilowatt continuously for the same length of time (Musa, 1978).

Limitations to the use of donkeys in Nigerian farming systems include:

- there is little experience (the colonialists introduced oxen but not donkeys as work animals in farming systems)
- training in the use of donkeys is not available
- appropriate equipment for donkeys is not available
- the salvage value of donkeys is low.

The value of donkeys for meat is increasing. Donkeys are transported to the south of Nigeria where they are slaughtered and the meat is eaten.

Conclusions

Extension work is required on the use of donkeys for tillage operations. Improved use of donkeys could be achieved by including the utilisation and management of donkeys in the curricula of animal traction training centres.

Appropriate implements and harnesses for donkeys are needed. There is a need to develop improved harnesses and increase the knowledge of the extension staff on donkey use and management.

References

- FACU, 1996. *Mid-term review report on Jigawa Agricultural and Rural Development Authority (JARDA)*. The National Agricultural Technology Support Project (NATSP). Federal Agricultural Coordinating Unit (FACU), Dutse, Nigeria.
- FAO, 1989. *Production Yearbook: 43*. Food and Agricultural Organisation (FAO), Rome, Italy.
- Musa H L, 1978. *Donkey mechanisation: a supplementary power source for agricultural production*. pp. 57-58 in: Proceedings of Nigerian Society of Agricultural Engineers held 28-31 August, 1978, Ahmadu Bello University, Zaria, Nigeria.
- Musa H L, 1990. Development and use of animal-drawn implements in Nigeria. pp. 102-119 in: Gefu J O and Otchere E O (eds) *Draught animal power research and development in Nigeria*. Proceedings of a workshop held June 1989, Zaria, Nigeria. National Animal Production Research Institute, Ahmadu Bello University, Zaria, Nigeria. 155p. ISBN 978 2364 22 3