BEEF CATTLE HOUSING AND HANDLING TECHNIQUES IN MUBI, ADAMAWA STATE, NIGERIA

Kubkomawa, H.I[1]. Kenneth–Chukwu, A. M[2]., Krumah, J. L[3]., Yerima, I. N[3]., Audu, Z[4]. and Nafarnda, W. D[4].

1. Department of Fisheries Technology, Federal Polytechnic, Mubi Adamawa State, Nigeria
2. Department of Biochemistry and Animal Health and Production, College of Veterinary Medicine, Michael Okpara University of Agriculture, Umudike
3. Department of Animal Health and Production Technology, Adamawa State College of Agriculture Ganye
4. Faculty of Veterinary Medicine, University Abuja, Nigeria

Corresponding Author: Nafarnda, W. D. Faculty of Veterinary Medicine, University of Abuja, Abuja, Nigeria; Email: Wesley.nafarnda@uniabuja.edu.ng, nafarnda@gmail.com. Phone: +2348139778581

ABSTRACT

The objective of the study was to survey beef cattle housing and handling techniques in Mubi, Adamawa State, Nigeria in order to make room for improvement to ensure their welfare. One hundred (100) beef producers were randomly selected for oral interviews, discussion and physical observations. All beef cattle producers (100%) use make shift kraals or fenced yards without roofs, while 90% use local handling equipment. The use of elaborate housing and conventional equipment is limited in the study area. Though producers know that, well designed and maintained handling facilities are essential for the safe handling of beef cattle and prevention of injury to handlers. Good cattle handling facilities provide high level of control and safe access for the various husbandry tasks. Many accidents involving cattle could be eliminated with better handling facilities. Knowing the correct procedure is important for both the animals and handlers.

Keywords: Beef Cattle Housing, Handling Techniques, Mubi, Adamawa State, Nigeria

INTRODUCTION

Beef cattle do not require elaborate housing, especially if they are grazed on pasture during the rainy season (Alberta, 2014). The primary purpose of housing is to provide shelter from extreme weather conditions. However, cattle can be kept outside if they have protection from the weather. Cattle are large and strong animals that can behave unpredictably, especially when they are not used to handling. It is paramount to always bear this in mind, and to take all possible precautions to ensure safety of the operators. In beef cattle production, management of animals involves housing, dipping, hand dressing, vaccination, branding, weighing, dehorning, castration, earmarking, pregnancy testing, drafting, and treatment of sick ones (Adamu & Kubkomawa, 2018). This requires that, cattle are handled properly and about 50 times per annum. The objective of the study was to survey beef cattle housing and handling techniques in Mubi, Adamawa State, Nigeria in order to make room for improvement to ensure their welfare.

MATERIALS AND METHOD

The Study Area
Adamawa State is located at the area where the River Benue enters Nigeria from Cameroon Republic and is one of the six states in the North-East geopolitical zone of Nigeria. It lies between latitudes 7^0 and 11^0 North of the Equator and between longitudes 11^0 and 14^0 East of the Greenwich Meridian (Mohammed, 1999). It shares an international boundary with the Republic of Cameroon to the East and interstate boundaries with Borno to the North, Gombe to the North-West and Taraba to the South- West (ASMLS, 2010).

The Study Site
Mubi is located at the Northern part of old Sardauna Province, which now forms Adamawa North Senatorial district as defined by INEC (1996). The region lies between latitude 9^0 30´´ and 11^0 North of the Equator and longitude 13^0 and 13^0 45´´ East of Green witch Meridian. It has an altitude of 696 meters above sea level with an annual mean rainfall of 1,220mm and a mean temperature of 15.2^0C during Hamattan periods from November to February and 39.7^0C in April (ADADP, 1986).

Selection of Respondents and Sampling Design
The research covered a period of 12 months (January to December, 2018), during the survey, visits were paid to beef fattening sites, government institutions, abattoir and Mubi international livestock market where respondents were identified.

Data Collection
One hundred (100) beef producers were randomly selected for oral interviews, discussion and physical observations on beef cattle housing and handling techniques. Structured questionnaire were developed in English language and used to collect information on beef cattle housing and handling techniques.

Data Analysis
Data generated from the survey were subjected to descriptive statistics such as frequency distribution, percentages to explain beef cattle housing and handling techniques in the study area.

RESULTS AND DISCUSSION
The findings showed that, there is no elaborate housing used by the producers not even the government institutions (Table 1ai). The findings again showed that, all the producers (100%) use make shift kraals or fenced yards without roofs. The kraals are locally made using woods, iron bars, wire mesh, sticks and bricks. The animals are never protected from harsh weather conditions as what housing should be. They are kept in the open, day and night throughout the production period as shown in Figure 1. This situation affects negatively the performance of the animals and hence reduced output.

Figure 1: Make Shift Kraal (Dry Season and Wed Season)

Table 1 Beef Cattle Housing and Handling Equipment in the Study Area

	Parameter	Frequency	Percentage (%)
A	**Type of Beef Cattle Housing Used**		
I	Elaborate Housing	0.00	0.00
Ii	Make Shift Kraal	100	100
B	**Type of Handling Equipment Used**		
I	Conventional Equipment	10	10.00
Ii	Local Equipment	90	90.00

The results showed that, 90% of the producers use locally made crush, loading ramp, grip of animals' jaws and nostrils, halter or casting as shown in Table 1.

Use of Crush

The findings indicated that, producers use locally made crush for holding cattle safely as shown in Figure 2. It is used to enable easy access for examination of different sizes of animals. Crushes are used to minimize the risk of injury to both the operator and the animals.

Figure 2: Use of Crush

Figure 3: Loading Ramp

Use of Loading Ramp

The results also showed that, producers use locally made animal loading facilities which help to reduce loading time and the likelihood of injury to cattle and operators as shown in Figure 3. Low-bed trailers, less than 12 inches from the ground, with a drive-in alley and side gates to funnel the cattle are used.

Grip of Animals' Jaws and Nostrils

The results showed that, animals without horns or those who do not resist being held by attendants, can be handled properly by putting one's fingers in their nostrils pulling their heads closer and holding them firmly to stand still. This method is safer as the fingers exert pressure and pains to the animal thereby, surrendering fully to whatever examination or treatment meted out to it as can be seen in Figure 4.

Figure 4: Grip of Animals' Jaws and Nostrils

Figure 5: Use of Halter

Use of Halter or Casting Technique

The results showed that, animals are restrained by holding them securely or tie them up with a halter or cast them leaving a long stick tied to the horns as shown in Figure 9. This helps to manage bad-tempered cattle to catch and handle them safely. The results showed that, 10% of the producers use conventional equipment in handling beef cattle in the study area. The equipment includes nose-ring and weighing bridge as shown in Figures 5 and 6.

Use of Nose-Ring

The findings showed that, nose-rings are used with ropes or chains attached to them to hold firmly the noses of very strong animals restraining them completely in one place. This helps the veterinary personnel to carry out any medical examination and possible treatment on the animal with ease, without fear of injury (Figure 6).

Figure 6: Use of Nose-Ring

Figure 7: Use of Digital Weighing Bridge

Use of Weighing Bridge

The results showed that, digital weighing bridges are used in the study area especially the institution based producers as shown in Figure 7. The process of weighing different classes of beef cattle at various stages is essential for the efficient management, supplementary feeding and selection of animals for fattening programme.

CONCLUSION AND RECOMMENDATIONS

It is concluded that, most beef cattle producers in the study area still use indigenous housing and handling technologies. Therefore, whatever housing system is used, behavioural needs of animals such as resting, feeding and drinking should be properly met to avoid serious risk to their welfare. Careful, quiet handling of cattle is also important in improving productivity. Stress imposed by handling and transportation have

detrimental effects on weight gain, rumen function, reproductive function, and the immune system. Quiet handling reduces stress-related meat-quality problems such as dark cutters.

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