

Lecture 4



CATTLE PRODUCTION

Cattle Production, Problems and Prospects in Nigeria

An average Nigeria consumes only 3.245g of animal protein of animal protein per day. Cattle industry has been making significant contribution to the National Economy of the country in that it provides. Food such as meat, milk and egg, employment, raw materials for industries like hides and skin for clothing, shoes, as source of foreign exchange, generates income to rural people through sales of animals and their products

Prospects

Nigeria has high prospects of increasing her cattle population because of increased preference for beef, good prices brought about by population growth, better health and nutritional education of the citizens, high economic growth rate, better per capita income all leading to higher demand for beef, per capita consumption of animal protein is grossly inadequate hence market favours producers. Cattle breeds are adapted to the environment. Vast grasslands are available in the country for cattle production. There are large rivers and lakes for adequate water supply. Animal traction and transport are available in Northern Nigeria. Building requirements for cattle production is not elaborate, hence low initial capital outlay. Beef animal serves as financial security or collateral in times of need. No tribal, religion or social inhibition or taboo to beef consumption or leather goods. Availability of personnel to man the animals

Problems

1. Socio-cultural

Cattle production is the traditional occupation of the Fulanis and Shuwas in Nigeria. They are characterized by the love of animals, dependence on daily milk economy, an annual

transhumant system of production forced on them by the agro-climatic constraints, and hence a constant base shifting that makes it difficult to impart new knowledge and technical innovations. Overstocking often leads to overgrazing of available grasslands. Unfavourable land tenure system is a major socio-cultural constraint

2. Management

Management includes nutrition, breed and breeding, housing, disease control, herd health management, environmental factors. To get more beef, we need to improve the environmental factors directly affecting production. Emphasis was placed in the past on developing a high genetic potential cattle for production by introduction of exotic breed. The nation can do better in cattle industry development based on the existing highly adapted breeds. Biological efficiency however, without regard for environment which was to support it is undesirable and often leads to failure. Nutrition is the most important single factor, apart from endemic disease, constraining livestock production in Nigeria. Wide seasonal variations have an important influence on food production. Irregular precipitation coupled with high rates of evaporation brings about two seasons. When there is high variability in feed supplies, marked fluctuations arise in the weight gain of grazing animals causing poor quality meat. Improvement in pasture is very expensive. Land gradient in some cases does not lend itself to mechanization. Thus, there is need for concentrate supplementation. Lack of improvement in crop yields and the competition between human and animals as well as brewing industries for the available grains makes meeting nutritional requirement at reasonable cost more difficult to achieve. The beef industry is also faced with insidious economic disease which leads to breeding inefficiency, reduced weight gain, decreased feed efficiency, poor condition and even death.

3. Financial constraint

Beef cattle industry suffers untold hardship despite government effort on lending policies to assist livestock farmers through injection of money from financial institutions. However, the slow rate of production, returns and recovery of loans, lack of technical know-how on processing loans and lack of security guarantee are parts of the problems leading to low financing of cattle industry up to the present time.

4. Marketing

There is no organized market system, no market information, no standard or organized auction of live cattle, exploitative middlemen, inefficient transportation, slaughtering and processing

5. Lack of commitment

There is generally lack of personal commitment on government farms. No motivation, no sense of patriotism on government farms, high ranking officers are not personally involved, overstaffing is the order of the day. Official protocols kill initiatives. These make government farms an unprofitable venture.

Indigenous and Exotic Breeds of Beef and Dairy Cattle

Family BOVIDAE- Taurine

- Bibovine
- Bibontine
- Bubaline

Taurine- Bos Taurus

- Bos Indicus

Bibovine – Bos gaurus

- Bos Frontalis

Bibontine-Bos gunniens

- Bos bison

Bubaline- buffalo found mainly in South East Asia and Phillipines

Types of cattle

1. Beef type-mainly for meat e.g Sokoto Gudali, Red Bororo, Ndama (Borgu), Brown Swiss (have great width and depth of body)
2. Dairy type- mainly for milk White Fulani, Kuri, Shuwa Arab (Wadara), Holstein, Jersey, Ayrshire (lean angular with well developed mammary gland)
3. Dual purpose type: meat and milk production e.g Muturu, Shuwa (Wadara), Azuwal, Biu
4. Draft type: work animal (great size, ruggedness long legs for walking long distance) e.g Sokoto Gudali

Classes of cattle

1. Humped or zebu (highly resistant to rinderpest and better adapted to living in arid or semi-arid areas)
 - a. Long horned e.g White Fulani or Bunaji and Red Fulani or Rahaji

- b. Short horned e.g. Sokoto Gudali, Shuwa Arab or Wadara
- 2. Humpless or Non-zebu (resistance to trypanosomiasis, survive in forest areas)
 - a. Long horned cattle e.g. Ndama, Kuri or Budama
 - b. Short horned cattle e.g. Muturu

Breeds of Indigenous Cattle

Kuri

Also known by: *Kouri, Baharié, Buduma, Budduma, Budumu, Boudouma, Chad, Dongolé, Kuburi, White Lake Chad*

The gigantic bulbous horns are an unmistakable trait of the Kuri. These cattle are native to the shores of Lake Chad where Cameroon, Chad, Niger and Nigeria join. The Kuri are believed to be descended from the Hamitic Longhorn cattle and have been herded by the Buduma and Kuri peoples for centuries.



Kuri Cattle

The tribesmen were strict in their selection of animals for their horns, many of which grow in a lyre or crescent shape. The horns sometimes reach 130 cm in length and 55 cm in diameter. Most remarkable is the unique pear shape of the horns.

These animals are kept as dairy cattle in herds of approximately 30 females with one bull. The animals spend several hours each day in the water swimming in search of water plants for food. It is thought that the horns act as floats. The cattle are acclimated to water to such a degree that they survive with difficulty away from their indigenous area. They are easily affected by the sun if unable to bathe. Because of this, the Kuri are largely unsuitable as working animals. The bulls, which are docile and friendly in temperament, are occasionally used as pack animals but they are slow and tire easily. The females yield 4 liters of milk a day after nursing their calves.

The Kuri are tall for an African breed, with a long back, shallow body and a large, bony rump. The legs are strong, long and bony with large, widely cleft hooves. Kuri are usually white in color. The females are 135 to 145 cm in height and average 400 kg in weight. The bulls range from 152 to 180 cm and average 475 kg of weight. Some males will reach 600 kg.

Red Fulani

Also referred to as M'Bororo, Red Bororo, Wodabe, Fellata, Abori, Bodadi, Brahaza. They are found in Borno and Sokoto states and Chad Republic. Plain red coat coloured, temperament can be nervous and intractable. Adult live weight is 350 – 450kg and possesses long (up to 140cm) lyre-shaped horns. They are poor milkers.

N'Dama

Other Names: *Boenca* or *Boyenca* (Guinea-Bissau), *Fouta Jallon*, *Fouta Longhorn*, *Fouta Malinke*, *Futa Malinke*, *Mandingo* (Liberia), *N'Dama Petite* (Senegal). Incorrect names that are sometimes used: *Dama* and *Ndama*.



The N'Dama breed is the most representative "Bos Taurus" breeds in West Africa. The origin of this breed is located in the Fouta-Djallon highlands of Guinea (Conakry). From there the N'Dama has spread to the sudanian and guinean regions. Being trypanotolerant, it has been

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used for large scale dissemination for grazing savannah in Congo, Central Africa, Gabon, Nigeria and Zaire, especially in the regions infested by the tse-tse fly. The N'Dama is a hardy breed, medium size type (100 cm at shoulder height for cows; 120 cm for bulls) with a large and strong head and with lyre-shaped horns. Its skin, with short and thin hair, is fawn colored but varies from sand to black colour and sometimes spotted.

Cows produce only 2 to 3 liters milk per day during 7 to 8 months. The N'Dama breed is used for meat and the ratio carcass/live weight is around 50%. The meat has a very good flavour without much fat. Average live weight for a mature steer varies between 250 to 300 kg. In West Africa, to date there are approximately 7 million head of N'Dama. For the last 65 years, this breed has been developed in Zaire, where large scale herds have been improved by permanent selection practices by a private company named "Compagnie J. VAN LANCKEIC" which owns over 40,000 head of purebred N'Dama. This company has managed to increase, by selection, the average live weight by 30 to 50kg without reducing the breed hardiness. This company is collaborating with the International Livestock Research Institute (ILRI) for an improved genetic analysis and selection.

Bunaji

Bunaji or White Fulani cattle is a white, black-eared and medium-horned breed, and is the most numerous and widespread of all Nigerian cattle breeds. The NNLRS estimated that they represent some 37% of the national herd. They are found from Lagos to Sokoto, Katsina and Kano States and spread across the Nigerian Middle Belt. The only areas from which they are significantly absent are old Borno state (Adamawa and Yobe States), where Rahaji and Wadara predominate, and in the south-east, where there are no resident zebu. The movement into the derived savannah and to the edge of the humid zone has largely been of Bunaji and pastoralists generally agree that they are superior to all other breeds of zebu in resisting disease.

Gudali

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Sokoto Gudali

There are two quite distinct types of Gudali in Nigeria – the Sokoto Gudali (or Bokooloji) and the Adamawa Gudali. The Sokoto Gudali is a uniform cream, light grey or dun, the dewlap and skin folds are highly developed and the horns almost absent. Although the Sokoto Gudali stereotypically occurs mainly in the northwest of Nigeria, in reality it is now distributed widely throughout the country. The NNLRS estimated that they represent some 32% of the national herd.

Adamawa Gudali

The Adamawa Gudali resembles the Bunaji in conformation. It is medium to large sized, with medium-length horns, and usually pied, or with a white, black, red or brown coat. It has thick, crescent-shaped horns, a pendulous hump, and a short head and muzzle. The pendulous hump is the feature that most reliably distinguishes it from the Bunaji. The NNLS estimated that Adamawa Gudali represent some 2% of the national herd. The Adamawa Gudali, as its name implies, is restricted to Adamawa. Both Kanuri and Fulbe (Fulani) pastoralists own Adamawa Gudali cattle. It is rare for them to have complete herds of Adamawa Gudali, and often they are mixed with Wadara, Bunaji or Rahaji. They are regarded by many farmers as the indigenous race of the region and are common in villages. Adamawa Gudali are favoured for ploughing, but when they become too large to pull a plough effectively they are further fattened in the compound and sent to market.

Azawak

The Azawak is said to be native to the Azawak Valley north-east of Nigeria and is distributed along its north-western border. It is lightly built with medium-length horns. Although Azawak in Niger are commonly described as red, the Azawak that enter Nigeria are usually a light fawn colour, though they can also be white, brown, pied and black. The NNLS estimated that they represent just 0.7% of the national herd. A small population of Azawak cattle exists in Nigeria throughout the year, but majorly as seasonal transhumants. Azawak are generally only found on the border north and west of Sokoto but there were also some in the north-west of Borgu and dotted along the frontier from Sokoto to Katsina.

Rahaji

The Rahaji is one of the largest zebu breeds and is distinguished by its deep burgundy-coloured coat, pendulous ears and long, thick horns. It is the third most numerous breed of cattle in Nigeria, some 22% of the national herd. The Rahaji is adapted to arid and semi-arid regions and rarely goes further south than Kaduna in the wet season, except for the isolated population on the Mambila Plateau in the south-east. Fulani pastoralists consider the Rahaji an extremely prestigious breed and many herds of 'white' cattle include a few Rahaji for crossbreeding. Nonetheless, it tolerates neither humidity-related diseases nor poor nutrition.

Wadara

Wadara cattle are medium-sized, lightly built cattle, and are usually dark red, black, pied or brown. They are short-horned and have a small erect hump, representing some 6.6% of the national herd. Wadara cattle are the 'indigenous' cattle of Borno and are referred to by the Koyam and related pastoralists as

'our' cattle. They are frequently called 'Shuwa' in the literature, after the Shuwa Arabs who also herd them. A related breed with a white coat, the Ambala, is often traded into Nigeria from Chad.

West African Dwarf Shorthorn

The West African dwarf shorthorn or muturu is small bodied, and blocky in conformation with short, fine-boned limbs. It has a compact body, no hump, a straight back, and a broad head. The face is slightly dished, and the horns are very short. In south-central Nigeria, the muturu is generally black, or black and white. Animals on the Jos Plateau itself are usually black and white but are distinctly larger than lowland animals. There are more variations in the northern populations; brown, red or tawny animals were recorded.

Within Nigeria, Muturu cattle have a very disjoint distribution suggesting the gradual retreat of a once more widespread population. Muturu are widely dispersed and often stall-fed, and so are less visible than zebu. There are isolated populations of Muturu along the Republic of Cameroon frontier up as far as south-eastern Borno, adjoining the Michika-Mubi area of Adamawa. Small clusters exist in the Atlantika mountains, south-east of Yola and near Cham east of Bauchi. Muturu are still relatively common south-east of the Jos Plateau in the dry savannah. There is another nucleus of Muturu north of Tgina in the north-west, with diverse coat-colours suggesting a link with the north-eastern populations. Muturu were probably once kept throughout the whole of southern Nigeria and that their disappearance from many areas is relatively recent. At present, the major concentrations of Muturu are in the south-east, in the Cross River area and among the Tiv people in and around Makurdi. Muturu are kept throughout the Igbo areas but in very low densities. The division of muturu into different populations is somewhat controversial. The research defined four subsets; northern savannah/montane, plateau, derived savannah and forest. Only the first group is distinctive in physical appearance; the further north they are found, the larger in stature they are. Muturu in the derived savannah and forest are similar in colour, conformation and management and contrast with those in the northern savannah/montane environments.

Keteku (taurine x zebu crosses)

These are crosses of Muturu x Zebu or Muturu x N'Dama. The Muturu x Zebu cross is called the Borgu Keteku and the Muturu x N'Dama, the Lagos Keteku. Keteku are significantly less common than previously thought and their distribution quite different. It is unlikely that there as many as 100,000 of all types. Borgu Keteku combines Muturu and Bunaji features with white, grey and black types predominating, and more occasionally red and brown. The horns are long compared with a muturu, but the hump smaller, and the legs shorter than a Bunaji. In Nigeria, keteku in herds are restricted to a narrow band along the Benin Republic border in the region usually known as 'Borgu'. Further east, keteku are occasionally kept adjacent to villages in northern Yorubaland.