

## **CATTLE DEVELOPMENT AND FODDER DEVELOPMENT PROGRAMMES IN KARNATAKA**

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### **ABSTRACT**

Even a herd of best cattle will not pay if it is not looked after properly. The cattle management is the sum total of human attention paid to the animal. The low level of animal feeding, health care and management, are probably the main factors responsible for the milk. Low resistance to disease, low breeding capacity and low production. Full benefit of improved breeding, feeding and management can be achieved only if the cattle are kept in a State of proper care. In this chapter proper feeding which means good management, housing shed, cattle development, water requirements, fodder and feed resources, fodder development, marketing system, transporting, financial assistance and veterinary care for cattle available in the State have all been discussed.

### **SHED CONDITIONS FOR CATTLE IN KARNATAKA**

For the improvement of cattle population, it is essential to maintain the stock under proper breeding conditions. The need for housing cattle is important from the point of view of cattle health, cattle development and comfort. A suitable shed is essential to make the best use of the environment. Properly designed shelter contributes not only to the comfort of the cattle but also to maintainance and enables the rearer to use efficiently. Shelter for cattle helps to protect from severe cold and excessive heat.

In the era of agriculture revolution, it has become absolutely essential to ensure that a rearer has a good knowledge about shelter for cattle for maximum production under hygienic conditions. To obtain this, it is necessary to provide them protection from the inclement weather where water and other facilities are readily available. It is essential to keep the cattle separately and bring them to ewes only at the time of milking.

As in other parts of India, the cattle are mainly sheltered in open spaces under ill-thatched roof under village conditions in Karnataka State also. The shelter floors are temporary, uneven and uncomfortable. The shelter is suffocating and even smelling gases irritate the nose and throat. In these irksome environment farm animals particularly cattle cannot be either healthy or strong enough to yield good milk and power to agricultural operation.

The shelter and sanitary facilities for cattle in Karnataka State are very poor and unsatisfactory. It is very common to see farmers especially marginal and small farmers and landless labourers, shelter their cattle in a part of their dwelling houses. It could therefore be correlated that the type of shelter facilities provided to the cattle depend mainly on the economic conditions and standards of the rearers and the number of cattle kept by them. By and large, construction of a small shed by using indigenously available materials like straw, hay, dry sugarcane and coconut leaves are commonly found in the whole State. There are instances where the cattle are even kept in open spaces due to the shortage of place in the dwelling houses. It is seen by personal observation during the field survey that the cattle rearers could not afford to have a separate shed for their cattle and sometimes they are kept

with other farm animals in the shed. Therefore Gandhian concept of co-operative cattle farming is very essential to make use of proper time and to provide protection to cattle.

Generally cattle rearers use indigenous materials for the building of shed, which is not stable for a very long duration. The floor is muddy and uneven with accumulation of bad smelly water and makes the condition favourable for the growth of germs that causes several diseases to the cattle.

### **SHEDS FOR DAIRY CATTLE**

An efficient management of cattle will be incomplete without a well-planned and adequate housing of cattle.<sup>2</sup> Improper planning in the arrangement of animal housing may result in additional labour charges and thus curtail the profit of the owner. During erection of a house for dairy cattle, care should be taken to provide comfortable accommodation for individual cattle. No less important are the following

1. Proper sanitation,
2. Durability,
3. Arrangements for the production of clean milk under convenient and economic conditions, etc.

### **Location of Dairy Buildings**

The points which should be considered before the erection of dairy building are as follows.

1. **Topography and drainage.** A dairy building should be at a higher elevation than the surrounding ground to offer a good slope for rainfall and drainage for the washes of the dairy to avoid stagnation within. A leveled area requires less site preparation and thus lesser cost of building. Low lands and depressions and proximity to places of bad odour should be avoided.
2. **Soil type.** Fertile soil should be spared for cultivation. Foundation soil as far as possible should not be too dehydrated or desiccated. Such a soil susceptible to considerable swelling during rainy season and exhibit numerous cracks and fissures.
3. **Exposure to the sun and protection from wind.** A dairy building should be located to a maximum exposure to the sun in the north and minimum exposure to the sun in the south and protection from prevailing strong wind currents whether hot or cold. Building should be placed so that direct sunlight can reach the platforms, gutters and manages in the cattle shed. As far as possible, the long axis of the dairy barns should be set in the north-south direction to have the maximum benefit of the sun.
4. **Accessibility.** Easy accessibility to the buildings is always desirable. Situation of a cattle shed by the side of the main road preferably at a distance of about 100 meters should be aimed at.
5. **Durability and attractiveness.** It is always attractive when the buildings open up to a scenic view and add to the grandeur of the scenery. Along with this, durability of the structure is obviously an important criteria in building a dairy.
6. **Water supply.** Abundant supply of fresh, clean and soft water should be available at a cheap rate.

7. **Surroundings.** Areas infested with wild animals and dacoits should be avoided. Narrow gates, high manager curbs, loose hinges, protruding nails, smooth finished floor in the areas where the cows move and other such hazards should be eliminated.
8. **Labour.** Honest, economic and regular supply of labour should be available.
9. **Marketing.** Dairy buildings should only be in those areas from where the owner can sell his products profitably and regularly. He should be in a position to satisfy the needs of the farm within no time and at a reasonable price.
10. **Electricity.** Electricity is the most important sanitary method of lighting a dairy. Since a modern dairy always handles electric equipments which are also economical, it is desirable to have an adequate supply of electricity.
11. **Facilities, labour, food.** Cattle yards should be so constructed and situated in relation to feed storages, hay stacks, silo and manure pits as to effect the most efficient utilisation of labour. Sufficient space per cow and well-arranged feeding mangers and resting areas contribute not only to greater milk yield of cows and make the work of the operator easier but also minimizes feed expenses. The relative position of the feed stores should be quite adjacent to the cattle barn. Noteworthy features of feed stores are given as below.
  - a) Feed storages should be located at hand near the centre of the cow barn.
  - b) Milk-house should be located almost at the centre of the barn.
  - c) Centre cross-alley should be well designed with reference to feed storage, the stall area and the milk house.

## TYPES OF SHEDS FOR CATTLE

The most widely prevalent practice in this country is to tie the cows with rope on a katcha floor except some organised dairy farms belonging to government, co-operatives or military where proper housing facilities exist. It is quite easy to understand that unless cattle are provided with good housing facilities, the animals will move too far in or out of the standing space, defecating all round and even causing trampling and wasting of feed by stepping into the mangers. The animals will be exposed to extreme weather conditions all leading to bad health and lower production.

Dairy cattle may be successfully housed under a wide variety of conditions, ranging from close confinement to little restrictions except at milking time. Two types of dairy barns are in general use at the present time.

1. The loose housing barn in combination with some type of milking barn.
2. The conventional dairy barn.

**Table-1**

### The floor and manger space requirement of dairy cows

Floor space per animal (in. feet)			
Type's of Animals	Covered area	Open area	Manager length per Animal(inches)
Cows	20-30	80-100	20-24

Buffaloes	25-35	80-100	24-30
Young stock	15-20	50-60	15-20
Pregnant Cows	100-120	180-200	24-30
Bulls Pen	120-140	200-250	24-30

Source: ICAR, New Delhi, India

### Other Provisions for Cattle

The animal sheds should have proper facilities for milking barns, calf pens, calving pens and arrangement for store rooms etc. In each shed, there should be arrangement for feeding, manger, drinking area and loafing area.

The shed may be cemented or brick paved, but in any case it should be easy to clean. The floor should be rough, so that animals will not slip. The drains in the shed should be shallow and preferably covered with removable tiles. The drain should have a gradient of 1" for every 10" length. The roof may be of corrugated cement sheet, asbestos or birck and rafters. Cement concrete roofing is too expensive.

Inside the open unpaved area it is always desirable to plant some good shady trees for excellent protection against direct cold winds in winter and to keep in summer.

### Design for Cattle Sheds

The entire shed should be surrounded by a boundary wall of 5' height from three sides and manger etc., on one side. The feeding area should be provided with 2 to 2½ feet of manger space per cow. All along the manger, there shall be 10" wide water through to provide clean, even available drinking water. The water through thus constructed will also minimise the loss of fodders during feeding. Near the manger, under the roofed house 5' wide floor should be paved with bricks having a little slope. Beyond that, there should be open unpaved area (40' x 35') surrounded by 5' walls with one gate. It is preferable that animals face north when they are eating fodder under the shade. During cold wind in winter the animals will automatically lie down to have the protection from the walls.

**Shed for calves.** One side of the main cattle shed there shall be fully covered shed 10' x 15' to accomodate young calves. Such sheds with suitable partitioning, may also serve as calving pen under adverse climatic conditions. Beyond this covered area there should be a 20' x 10' open area having boundary wall so that calves may move there freely.

### State Action

On the whole the shelter condition for cattle is very poor and inadequate. However efforts are being made in recent years to educate the cattle rearers to provide better shelter. In the farm of co-op-cattle farming.

Thus it is very necessary to pay urgent attention to shelter facilities for cattle in the State of Karnataka, for which Government should take proper action by providing technical and financial assistance to the rearers to improve their cattle wealth and time saving with farm of co-op-cattle farming.

### Water Requirements

The role played by water in all life process is of great importance. In the absence of water an animal would die in a comparatively short time but would continue to live for months with out any of the other nutrients. The animal body contains 65% of water and this constantly lost through skin, lungs, urine and faces. This loss has to be regularly replenished mainly from direct consumption and partly from food consumption.

A healthy cattle should consume 20-30 litres of fresh water per day. The water requirements of cattle depends upon the nature of food, climatic conditions and the nature of produce expected. The timely provisions of fresh water for cattle helps to remove wastes in the body and maintain body temperature. Normally the cattle always prefer flowing rivulets as the source of drinking water. During summer days the water intake of cattle is more than (50% to 75%) the normal requirements. Even if the food is rich in protein content, the water intake of cattle is more. The suggested water intake of cattle is summarised below.

**Table 2: Food and Water Quantity for Cattle and Buffaloes**

Nature of food	Water Intake (lit/kg dry matter consumed)	Water Intake (lit/100kg body weight)
Concentrate roughage	20-30	10kg mixture+dry
Concentrate Mixture+green roughage	10-20	10kg

Source : ICAR, New Delhi, India.

The sanitary conditions in cattle are not satisfactory. It is very common to see cattle drinking stagnant and un-cleaned water during grazing hours in the field and this in turn leads to causing of several bacterial diseases. The present poor performance of indigenous cattle is due to the lack of clean and fresh water which is one of the important prerequisites for cattle. Therefore it is very necessary to give proper attention to water facilities for cattle in the State of Karnataka, in the path towards providing healthy and wealthy cattle.

### **Cattle Development Programmes in Karnataka**

1. Breed conservation, maintenance of Bull mother and Fodder Development in Livestock farms.
2. Semen production from selected bulls of different breeds in sperm stations.
3. Artificial Insemination through 4110 institutions spread throughout the state.
4. Training of farms in Animal husbandry and Dairying. Future plan-Intensify Artificial Insemination activity through door step delivery.

### **Marketing System**

Particularly for cattle and buffaloes there is separate and organized market facilities are found to exist in Karnataka State. It is a common practice, cattle & buffaloes rearers are held along with other livestock in a congested and ill-fated places. The movement of cattle with other livestock for market purpose is generally carried along roads. Enroute they touch a number of markets and cattle are moved from shandy to shandy. In Karnataka, number of shandies like Madduramma, Basavanagudi, Hemagiri, Atmalingeswara in Mandya District shandies are held, in annual fairs. The details of the number and names of shandies and fairs in Karnataka every year.

The live cattle market system almost is the same as described for milk market in the State. There are set up channels through which live cattle reach to the market places from the cattle rearers. In small towns and cattle farmers.

Procure cattle through brokers or middlemen, and sometimes farmers personally visit shandies and procure cattle. The ultimate price received by the cattle rearer or producer is low and the price paid by the consumer is comparatively is very high, while the middlemen gets a lion's share profit in the live cattle market.

Further male calf and cattle account for 20% of the total arrivals. It is gathered from wholesale dealers that the arrivals of cattle are significantly more in March and April, the beginning of the summer as herdsmen resort to sale of young stock in anticipation of fodder and feed shortage which may become acute in the subsequent summer months. Apart from this tempting meat prices have their impact on the live cattle which lure the farmers to sell off male calf and un health species. The demand for meat has enhanced sharply in recent years causing the arrivals of male and young stocks in greater proportion from traditional source of supplies. In the years to come further depletion of stock is bound to take place in the absence of any effective measures to encourage stock building programmes.

### **SUGGESTION FOR IMPROVEMENT**

To improve the marketing facilities in the State, the following suggestions are made:

- a) To ensure better returns to the cattle owners regulated markets may be established in all important feeder centres or alternatively herdsmen co-operative societies may be formed to produce milk and other products and organize the sales in consuming on the lines similar to milk distribution system. For agricultural products there is an organized market. There is no such facility for cattle products.
- b) Basic needs of shelter, water and fodder for cattle should be made available easily and efficiently.
- c) Even in the big livestock shandies, animal are kept outside in dirty places. The authority should take the responsibility for arranging the basic need and amenities to the animals. Some market areas need to change to a new area where such facilities can be ensured.
- d) Marketing malpractices and exploitation by money lenders are a result of almost total lack of institutional credit system should be done through the supervision cum guarantee provided by bodies responsible for improvements of Small holders livestock products. Training in marketing economics should be overcome the lack in the advanced marketing management know-how.

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