

Saving by depreciation and mhothe material  
from previous figure.

14 pies.

Therefore gain by a double ramped mhothe if  
a bigger bucket is used is

2 as. 10 pies.

A bigger bucket with a capacity of 60 gallons can be conveniently used and the profit accruing is higher.

In the case of deep wells, the use of a double ramped mhothe is thus more advantageous than a single mhothe both from humane and economical points of view.

K. Avadainayagam.

[About fifty Bellary mhotes are working in Ganapathy, Peele-madu and other villages in the Coimbatore Taluk—Editor.]

### **A tour in Guntur Cattle-breeding tracts.**

*(A Rambler)*

I arrived at Chirala on the 19th and left for Chilakalavorepeta where I arrived the same evening, having journeyed 24 miles unenlivened by the vast stretches of sorghum fields skirting the road all the way. This village is, as Indians estimate it, an important centre in the tract where the famous Ongole breed is reared and lies on the Guntur-Ongole road. The predominating soils of this tract are black loams or alluviums brought down and deposited by the several jungle streams which with their torrents obstruct the passage of a hapless footman or carter on a rainy day, but yield readily to a soil-digger when they are dry. These streams pursue a winding course, and by their very sluggishness at low water, ensure an unfailing supply for cattle roaming into them to quench their thirst or have a plunge. They drain the surrounding country very well and grass grows rich and in large quantities on lands lying near. The two features which give this tract an eminence for its breed of cattle are the plentiful grazing and good water supply. Many villages have grown up on the banks of these streams and the important ones are Dandamudi, Uppilipadu, Cottipadu, Velore and Snadepadu all which I visited.

Breeders here do not form a separate class. The cultivating classes are themselves mostly breeders. Cattle are bred both for use in the plough locally and sale elsewhere. The chief demand comes from the sparsely populated Ceded Districts which lie to the west.

Certain poorer classes of people are also engaged in breeding especially Malas. A Mala purchases a heifer calf or two from cultivators and rears them for the Madras market. These calves are stallfed, while the larger number which a cultivator keeps are pastured on grazing areas also. It is the custom to put on pasture only cows, heifers and bull calves. Work cattle are always stallfed. In the cultivation season i. e., when crops are growing, animals are taken home into the village, at other periods of the year they are housed during the day in temporary and movable sheds, at times in permanent structures also, put up in the open fields with the fodder stack near by. At nights they are penned in the fields themselves.

Their chief foods are Sorghum (Jonna) fodder and horse gram chaff (bhusa). Sorghum is regularly grown with the early rains, cut when in flower, dried and stacked. Phaseolus trilobus (pillipesara) is raised in small areas by certain cultivators who cut it green and feed to cattle and are able to take 3 to 4 cuttings during the season.

The breeders here are adepts in their art and could tell to a minutest degree what points to fix in a good milch cow or what to find in a daught bull. They possess an intuitive knowledge of the animals which is strengthened by experience. Long round barrel straight croup not drooping, broad quarters, high-set tails, short legs, firm foot, level back, not-pendulous sheath, iron grey skin are amongst the chief points which people here esteem in a breeding bull. They are keenly alive to the importance to be attached to Pedigree and Prepotency. The value they set is embodied in two pregnant phrases "Avu padugu" (pedigree of the cow) and "Eddu sara" (potency of the bull). In the selection of a cow, pedigree plays the chief part whilst potency and pedigree both determine the choice of a bull. To ensure very high quality, a group of village elders sits to select a Brahmini bull and with them invariably join experienced men who have personal knowledge of the parentage of the bulls brought before them for selection.

From here I journeyed by road and rail via Narsaraopet and reached Ongole on the main line on the 22nd. Five villages in the neighbourhood, Throvakunta, Eduguntalapadu, Venkatarajupalam, Doddavarapadu, Karavadi, next claimed my attention. In the first four, malas and poor cultivators purchase heifers and rear them for the Madras market as seen heretofore, and in Karavadi which is a regular breeding village, good specimens of Ongole cattle are available.

The Ongole tract is more extensive and well defined. The Guntlakamma in the north and the Musi in the south isolate it from other portions of the district and afford facilities for grazing and water supply. The tract is long and is wedged westward to a distance of 12 to 15 miles. The soil is alluvium or black loam. The whole of the tract is dry and a greater portion is rich black loam. The early season crops are Sorghum (Jonna), Pennisetum typhoideum (Sajja), the former for fodder the latter for grain. The late season crops which grow into the cold weather are maizes. The rotation in the best form is stated to be chillies—2 years, tobacco—one year, maize,—one year, and fodder cholam one year. Sometimes, indigo, takes the place of fodder Jonna over half the area. The first year chillies alone are manured. In poorer black soils, Bengal gram and coriander alternate with sorghum

The implements are the country plough, drills, and dantulu. The plough is long and big and broadbased. It opens a broad and deep furrow. The work done is splendid, the skill of the ploughman is wonderful, the perfectly straight furrows he opens for a distance of two furlongs and over, exciting admiration. He possesses a good knowledge of "Feering." The feered land is 10 to 12 feet wide and is known as a "Kondra."

I then shifted my camp to the Madras Government Farm at Chintaldevi in the Nellore District. To reach this place one has to travel southwards from Ongole, get down at Kavali, a taluk centre and make a road journey of 36 miles to the wet across a tract of country dominated by red laterite soils. It is intended to be a breeding station and seems adapted for the purpose though well out of the

regular zone of the typical Ongoles. The area is 700 acres, black loam occupies more than half, the remainder being red sand or gravel. This area is commanded by the Mopad irrigation project just completed which enhances its value, and is well fitted for the growth of fodder crops and grasses. The lands are being laid out and buildings are commencing. A beginning has been made in breeding with the purchase of a composite herd of cows, heifers and bull calves—60 best animals of the Ongole breed.

Finishing this, I wended my way back and reached Madras in time to get into harness again.

### **Efficiency of Agricultural Labour.**

D. ANANDA RAO, B. SC.

It was at the first Economic Conference held in Bombay, Dr. Mann read a paper on a similar subject in which he endeavoured to show that the agricultural labourer in this country is not as bad as he is depicted to be by several writers on Indian labour problems, and from certain experiments conducted, he argued that "the ploughman in America using his horses, is 50% more efficient than the ploughman here using bullocks."

It is not my intention to question the figures quoted by Dr. Mann, nor to argue in favour of or against the efficiency of the Indian labourer. Efficiency is, after all, only a relative term, and what is considered as a piece of efficient work in America may not be judged equally efficient in Britain compared with its own standards or *vice versa*. My object is, taking the labourer in India for what he is worth, to elicit from those more conversant with this important problem, any information on the methods of making labour still more efficient, if it is already so. Personally I am of opinion that there is room for improvement.

In the management of a farm, the handling of labour exercises the greatest tact, skill and patience. Labour has, it is true, suffered