

AGRICULTURAL DEPT. MADRAS

BULLETIN No. 95

THE WORK OF THE
LIVESTOCK SECTION



The Agricultural Department, Madras

Bulletin No. 95

THE WORK OF THE LIVESTOCK
SECTION



BY

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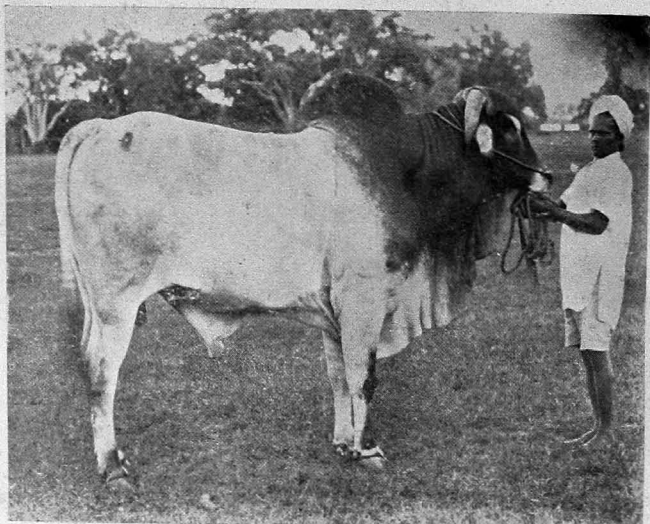


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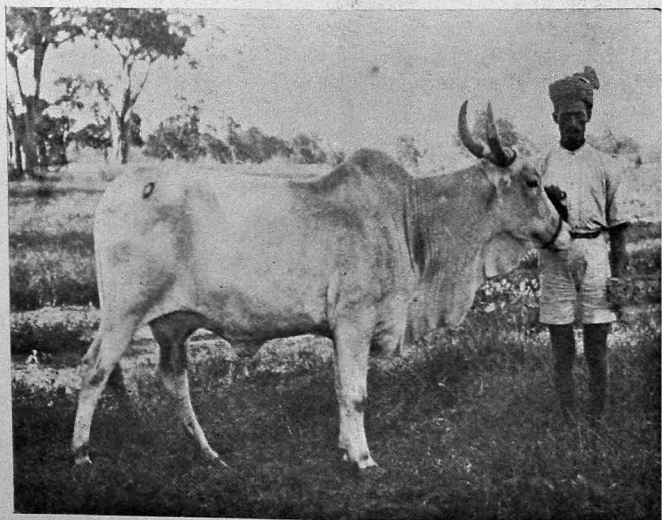
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ONGOLE BULL.



ONGOLE COW.

THE WORK OF THE LIVESTOCK SECTION.

India as a whole is almost entirely dependent on her cattle as these are one of the main factors in the production of food, etc. Good draught animals are required to cultivate the land for the production of foodstuffs and good cows and buffaloes are absolutely necessary in order to obtain the milk and milk products which are very essential if she wishes to build up a strong and sturdy race of people.

2. Cattle-breeding in some parts of this Presidency is carried on by professional breeders and their main object is to breed good bulls and bullocks for work purposes. No attention is paid to the milk-yielding capacities of the cow and in most cases the heifer-calves are neglected and ill-fed. Cows and heifers are looked upon solely for the production of bull-calves.

3. In parts of the Ongole tract for instance, where cattle-breeding has been carried on for generations, a ryot maintains say five or six cows, for breeding purposes and in addition one or two buffaloes to supply his household with milk, butter and ghee. The calf is allowed to suckle its dam and the cow is never milked out in order to find out how much milk it is yielding and in consequence, the cow only yields the amount of milk which is necessary for the maintenance of its young. The milk glands do not work to their fullest extent and so it is only natural that the yields are low. If the ryot had to milk out his cow fully one day per week, he would then find out the milk-yielding capacities of his cow. For example, if he found that his cow gave say, 2 Madras measures or 8 lb of milk in the morning and $1\frac{1}{2}$ measures or 6 lb. in the evening, he could milk out daily 4 or 5 lb of milk—3 lb in the morning and 2 lb. in the evening—which would be used by his household and allow the calf to suckle the rest and so save himself the expense of keeping a buffalo for supplying milk, the food and fodder which the buffalo consumes could then be given to his cows and young stock. Bull-calves receive the most attention generally and in some instances, they are given milk from a cow with a heifer-calf and the heifer-calf is only allowed sufficient milk to keep it alive.

4. Years ago, many good Brahmini bulls were to be seen in the villages, these were selected by a committee of leading ryots of the district, who always selected the best bull-calf possible, this calf was then dedicated to the temple. In these days, the price of good bull-calves has risen considerably and the people who dedicate bulls do not wish to spend so much money on a calf, the selection of the bull is not so rigid and so one sees in the districts some poor types of Brahmini bulls.

5. The ryot who possesses a very good bull-calf is often tempted to sell it for a big price and the animal is either sold and trained for a work animal or it leaves the district altogether. This is a bad practice;

the best bull-calves born in a district should be reared in that district and if they turn out to be good breeding bulls, they should be used in that district and there would be seen an improvement in the cattle.

SCINDHE HERD.

This breed of cattle is one of the best dairy breeds of India. It is a rather small compact animal and appears to do well in most parts of India. It does not cost so much to maintain as some of the other large breeds and keeps its condition even when on scanty rations. The aim is to improve the milk yields and to produce animals which mature early and breed regularly. The average milk yield of the breed is about 2,500 lb of milk per lactation.

The general characteristics of the breed are a rather small compact animal with a deep wide barrel and short legs, the chief colour of the breed being red. The head is short, the forehead broad and generally slightly protruding, the ears are large and slightly drooping and the eyes clear and well set apart. The horns vary, but they are chiefly short and fairly thick. The hump in the bulls is well developed. Tail is long and fine. Udder of the cow is well developed, but a little fleshy and pendulous. They are docile and easily handled. Bulls are well developed and strong but slow workers.

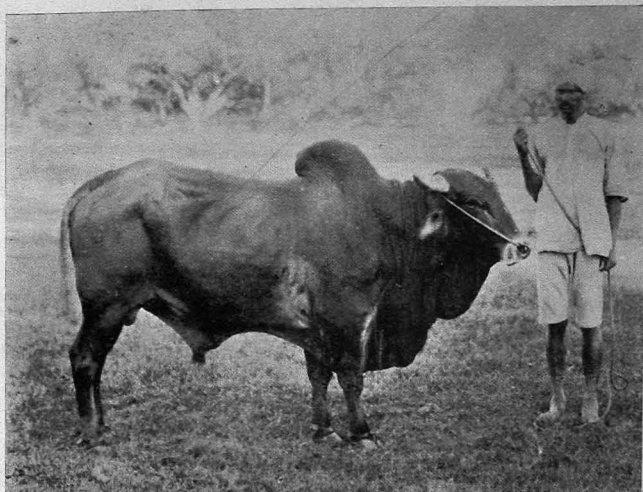
This breed is kept to raise a pure stock of bulls for distribution in various parts of the Presidency, principally the West Coast. The present herd consists of 125 animals. Bulls from dams yielding over 6,000 lb milk in a single lactation have been specially reared and fed and are being used as stud bulls in the herd. There will be some good bulls ready for issue in 1929 and onwards from this herd. Six bulls have been issued during the last year. Average price of a good bull is Rs. 200 to Rs 250

As a result of proper feeding and breeding, the heifers of this breed now calve at 3 to 3½ years instead of 4 years

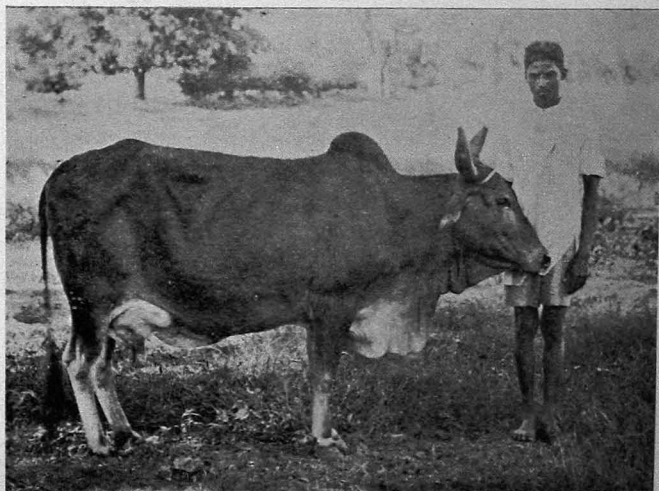
The following yields of eight of the first-class milkers will give some indication of the foundation stock —

Number of cow.	Number of lactations.	Highest lactation.	Average yield, all lactations.	Average daily average
		LB.	LB	LB
24	4	8,243 0	5,701 4	14 6
25	4	6,861 0	6,083 0	18 4
26	4	5,972 0	3,814 3	9 6
29	2	4,390 0	3,935 5	12 6
33	2	3,868 0	3,734 0	12 1
149	2	3,755 0	3,390 0	12 5
38	1	5,036 0	5,036 0	14 0
39	1	5,307 0	5,307 0	14 3

The average for the eight cows is 4,625 lb. in 340 days with a daily average of 13.4 lb.



SCINDHE BULL.



SCINDHE COW.

ONGOLE HERD.

This breed is considered to be the best dairy breed in Southern India. It is a dual purpose animal. It is a big heavy breed having a large, long and deep barrel and long legs. The usual colour is white or light grey. The animals have a fairly prominent hump and in bulls the hump is very well developed, the dewlap is long and extends to the navel region, the hair is fine and silky. The skin round the eye is generally black. The animals are very docile. The bullocks are very powerful animals and useful for slow work and heavy draught purposes. The chief breeding centre is Guntūr district.

This breed has been largely exported all over the East, with the result that the best cattle have been taken out of India. The Madras Government found that the breed was deteriorating and in order to maintain pure stock, opened an Ongole Cattle Farm at Chintaladevi in the Nellore District in the year 1918. Forty-six cows and five bulls were purchased. The object of this farm is to produce a number of good bulls annually for distribution in the breeding areas, the improvement of milk yield, and early maturity in heifers is also kept in mind.

In December 1924, 18 cows, 7 calves and 1 breeding bull were transferred to Hosūr.

The total number of cattle of this breed on both farms at present numbers 287 head.

A fair number of bulls for stud purposes and cows for breeding have already been issued from these farms and the demand is now on the increase. The average price of a bull is about Rs 200 to Rs. 250 at 2½ to 3 years.

Heifers calve down at 3 to 3½ years of age instead of the usual age of 4 to 4½ years.

The average milk yield of this breed can be put at 2,500 lb. per lactation.

The following table gives the yields of some of the heifers born on the farm:—

Number of cow.	Number of lactations	Highest yield in one lactation	Average yield, all lactations	Average daily average.
71	3	LB 4,779	LB- 4,441	LB. 12.2
72	2	3,839	3,884	12.8
100	1	5,422	5,422	14.5
109	1	5,174	5,174	16.2
111	1	4,939	4,939	16.5

The average for the five cows is 4,762 lb. in 336 days with a daily average of 14.3 lb.

Table showing the milk yields of cows purchased—

Number of cow.	Number of lactations.	Highest yield in one lactation.	Average yield, all lactations.	Average daily average.
		LB.	LB	LB.
7	2	3,245	3,221	10.7
13	3	4,723	3,804	13.6
25	5	3,952	3,550	11.0
30	6	3,827	3,307	12.5
33	3	4,023	3,675	10.3
68	2	3,653	3,641	11.6

The average for 6 cows is 3,533 lb. in 315 days with a daily average of 11.6 lb

The average weight of a cow is about 800 to 900 lb. and of a bull about 1,200 to 1,300 lb.

Particulars of two bulls used as stud bulls on the farm are as follows.—

Number of bull	...	...	...	31.	49.
Age	...	...	...	7 years.	5 years 7 months.
Height behind hump in inches	...	...	...	60 inches.	57 inches.
Length of back in inches from back of hump to root of tail	...	...	...	43 inches.	43 inches
Girth measurement behind the hump	...	...	...	82 inches.	78 inches.
Weight	..	...	...	1,648 lb.	1,489 lb.

The average weight of calves born at Chintaladevi is—

Heifer	...	...	...	...	59 lb
Bulls	...	...	...	...	65½ lb.

KANGAYAM HERD.

These are strong active animals with small compact bodies and short straight legs. They are in great demand for mholte and draught purposes. The head is short, the horns are long and pointed. The prevailing colour is grey and fawn, the bulls being a bluish grey. The dewlap is small and short when compared to the Ongole. Bulls have a fiery temper.

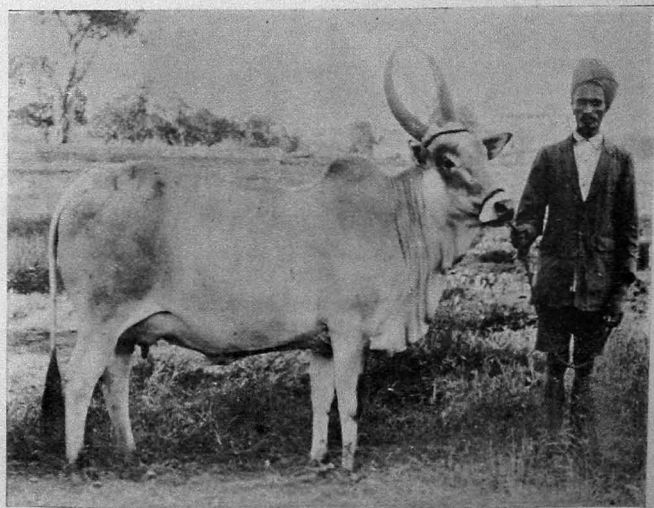
A small herd of these was maintained at Coimbatore and transferred to Hosur in 1924. The main breeding tract is Coimbatore District.

The aim is to produce a good stock of bulls for distribution in the Southern districts of the Presidency. The price of these bulls is about Rs. 200 to Rs 250 each.

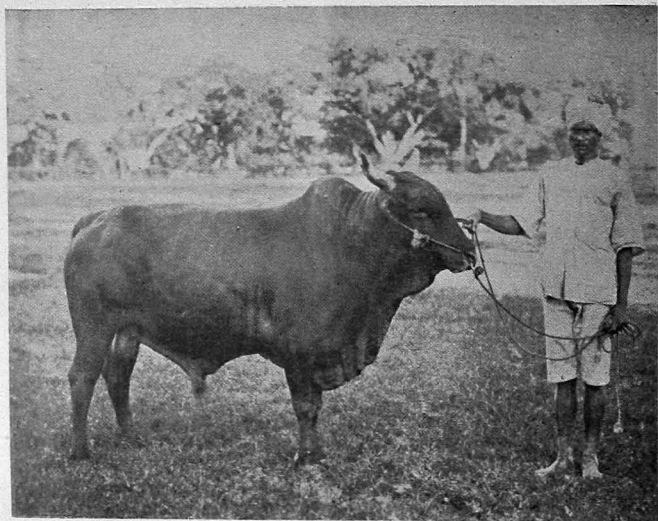
This breed thrives in Hosur and can maintain its condition on scanty rations. The present strength of the herd is 150 head. Attention is also being paid to the milk-yielding qualities of the breed. The average milk yield is about 4 to 5 lb. milk per day in a lactation (1,500 to 2,000 lb.).



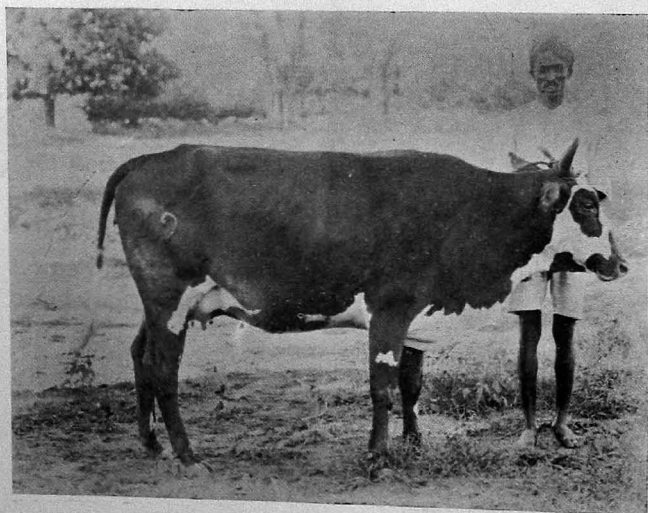
KANGAYAM BULL.



KANGAYAM COW.



CROSSBRED BULL NO. 23, 2ND GENERATION.



CROSSBRED HEIFER.

The average milk yield of the six best milkers at Hosur is 2,553 lb. in 294 days with a daily average of 8 8 lb.

CROSSBRED HERD.

In order to produce good milking animals for town milk supply, the Ayrshire Bull has been used on the Scindhe and Saniwal cows. The bulls and heifers of this cross are mated together thus keeping half country blood and half imported blood in the breeds. The first generation cross are mostly good milkers, yielding about double the quantity of milk of their dams. The second generation crosses are slightly smaller in size, several of these are in milk and are proving satisfactory milkers and breeders. Only two or three third generation crosses are in milk. It is hoped to evolve a breed of cattle which will be beneficial to the town dairyman.

A few bulls of this breed are available for sale to milkmen or public bodies in large cities and towns.

BUFFALOES—DELHI AND CROSSBRED.

Pure Delhi buffaloes and a herd of half-bred and three-quarter bred Delhi country buffaloes are reared. The object is to improve both the size and milk-yielding capacities of country buffaloes by crossing them with pure Delhi and crossbred Delhi bulls. The demand for good buffalo-bulls in the Presidency is great. Bulls from these herds are now becoming available for stud purposes and for sale to Co-operative Societies and private individuals. Price of a bull is about Rs. 150 to Rs 200.

The average yield of 3 Delhi buffaloes is 4,302 lb in 324 days with a daily average of 16 6 lb. The highest individual yield of one buffalo is 5,480 lb in 339 days with a daily average of 16·2 lb. the buffalo is still in milk.

The average yield of two three-quarter bred Delhi buffaloes is 4,135 lb in 339 days with a daily average of 12 2 lb the highest yield being 5,237 lb in 337 days with a daily average of 15 5 lb.

The average yield of 8 half-bred Delhi buffaloes is 3,866 lb. in 372 days with a daily average of 11 lb the highest yield being 5,897 lb in 344 days with a daily average of 17·1 lb.

The three-quarter-bred and half-bred Delhi bulls are larger in size than the ordinary country buffalo-bull.

CATTLE-BREEDING FARMS IN THE PRESIDENCY.

Hosur Central Cattle Farm—This farm is about 1,650 acres in extent, of which 250 acres are arable land, some of which is irrigable and the remainder is made up of grassland, roads and buildings. The farm was started in September 1924. The total head of stock

maintained on this farm is about 550. The following breeds are kept and bulls are at stud for service of outside cattle —

Ongoles.	|	Kangayams.
Scindhes.	|	Crossbreds.

A flock of Bellary sheep is also maintained and rams with good wool-yielding capacities are available for sale.

Australian Berkshire pigs and White Leghorn poultry are also available for sale.

Ongole Cattle Farm, Chintaladevi—This farm is in Nellore District and was opened in 1918, 46 cows and 5 bulls were purchased. The farm is about 800 acres in extent, about 180 of this is arable, some of which is irrigable and the remainder is pasture, roads and buildings. The number of stock at present maintained is 160. The cows are milked out fully two days per week and their yields recorded.

Bulls are at stud for service of outside cows at a nominal charge.

Buffalo-breeding Station, Guntūr—This farm is at Lam about 6 miles from Guntūr town. It is 150 acres in extent and all grass-land. It was opened in 1923 and the buffaloes from the Coimbatore Agricultural College Farm were transferred there. The number of stock at present is 56. Buffalo-bulls are at stud for the service of outside buffaloes. It is hoped to increase the herd in 1929 by the addition of 12 pure Delhi she-buffaloes.

Agricultural College Dairy, Coimbatore.—About 60 head of crossbred cows and calves are maintained at this dairy for supplying the estate with milk and for instructional purposes for the students.

Ten bulls including Delhi buffalo-bulls, Kangayams, Scindhe and crossbreds are kept chiefly for stud purposes for outside cattle.

About 25 lb of butter is made daily at this dairy.

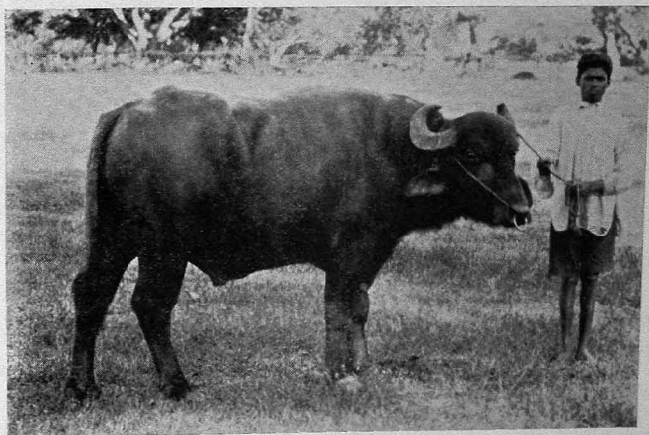
Breeds of White Leghorns, Rhode Island Red and Light Sussex poultry are kept for the purpose of supplying eggs and birds to the ryots and other people.

Madras breeding bulls—Seven breeding bulls are maintained for stud purposes in the Veterinary College, Madras, including 2 Ongoles, 2 crossbreds and 3 buffalo-bulls. These animals are in great demand by the milkmen. Prizes are given each year to the milkmen for the best-cared for calves born to these bulls.

An agricultural demonstrator is in charge of these and he advises milkmen and private people as to the feeding, housing and rearing of cows, calves, etc. He is always available for advice.

CARE AND TREATMENT OF A BULL.

Considering that a bull is half the herd, he should be treated well and given more attention than the ordinary animals of the farm, that is, if he is to get strong, healthy, well-developed calves and give a good return for the money invested in him.



DELHI BUFFALO BULL

When a bull is taken to his new home, he generally refuses to eat much at first and so two or three weeks should be allowed before he is permitted to serve cows, etc., in order that he can get accustomed to his new surroundings and his feed.

Housing.—One of the first points in the successful management of a bull is to provide him with proper shelter from the heat in summer and from the rains and cold in the monsoon; a shed about 10' x 10' well lighted and ventilated and free from draughts. A trough should be fitted. The best floor is concrete, Cuddapah slabs chipped (to prevent slipping), this is easily washed and kept clean. A good gravel floor is satisfactory but this cannot be washed. The shed should be thoroughly swept and cleaned out every morning.

Feeding.—The bull should be kept in good condition if the maximum value from the bull is to be obtained and so he should be regularly fed with a fair amount of concentrated food. A suitable ration for a bull is as follows —

Large bulls doing lot of services.

(1)	(2)
1 lb. cake	2 lb. cake
2 lb. horse gram.	1 lb. horse gram.
1 lb. cotton seed.	1 lb. cotton seed.
2 lb. rice bran.	2 lb. rice bran.
15 lb. dry fodder	15 lb. dry fodder
or	or
50 lb. green fodder.	50 lb. green fodder.

Medium-sized bull.

(3)	(4)
2 lb. cake	2 lb. horse gram.
1 lb. cotton seed.	1 lb. cotton seed.
3 lb. rice bran.	3 lb. rice bran
15 lb. dry fodder	15 lb. dry fodder
or	or
50 lb. green fodder.	50 lb. green fodder.
(5)	(6)
2 lb. cake.	1 lb. cake.
1 lb. cholam or sajja.	2 lb. horse gram.
3 lb. rice bran.	3 lb. rice bran.
15 lb. dry fodder.	15 lb. dry fodder.

(7)
2 lb. cotton seed.
1 lb. horse gram.
1 lb. dholli husk.
2 lb. rice bran.
15 lb. dry fodder.

Feeds should be varied a little from time to time if the bull does not relish his food.

Half the concentrated food should be given in the morning and half in the evening ; a suitable time-table is as follows :—

6-30 a m.	Clean out stall.
7 to 7-45 a m.	Exercise bull.
7-45 a m	Water.
8 a.m.	Feed half concentrated ration.
9 a m.	Groom and clean the bull.
11 a m	About 5 lb dry fodder.
5 to 5-45 p m	Exercise.
5-45 p m.	Water
6 p.m.	Feed half-concentrated ration.
6-30 p m.	Remainder of dry fodder 10 lb or green fodder.

Cake should be soaked in water for 12 hours before feeding and horsegram should be boiled. A little jaggery can be mixed in the food two or three times per week

Strict regularity in feeding both as regards quantity and time is one of the great secrets in the management of cattle.

Exercise.—Exercise is essential, otherwise the bull becomes slow and sluggish and shows no inclination to serve. Pay attention to the bull's feet, if the bull does not get enough exercise, the hoofs grow long and turn in and so the animal cannot walk properly. Keep the hoofs short and the soles flat by exercising in a hard road or by paring them with a sharp knife.

Grooming.—To keep the skin in proper condition and free from ticks, etc , the bull should be regularly brushed. Washing with soap and water is also beneficial occasionally

If vermin appear, wash the bull two or three times with a solution of disinfectant such as cresol, give an interval of a week between each washing. The first washing should kill the active vermin but not their eggs, the second washing will destroy the vermin which hatch out of the eggs

Service of cows.—It is not advisable to run the bull with the cows If this is done, the bull serves the cow repeatedly until both the cow and the bull are exhausted with the result that the cow may not prove in calf and the bull becomes unfruitful at an early age.

One service is sufficient if the cow is in proper season. Double service exhausts the bull to no purpose, endangers his fruitfulness, reduces his condition and constitution, diminishes the number of individual cows he can serve in one season and consequently the good he can do in the district.

PREMIA TOWARDS THE MAINTENANCE OF BREEDING BULLS.

Instructions for the working of the rules.

The bull will, in the first instance, be approved by an officer of the Livestock Section or the Deputy Director of Agriculture of the district. The bull should be available for inspection by any officer of the Agricultural Department Before the premium is paid the Deputy Director of Agriculture, Livestock, or one of his assistants.



BELLARY EWES, HOSUR.



BELLARY RAMS, HOSUR.

will inspect the bull and the service register and if he is satisfied with the condition of the bull and the maintenance of the register he will recommend a grant of from Rs. 100 to Rs. 150. A smaller sum than Rs. 100 may also be recommended if the conditions are not fulfilled in full but the bull is maintained in good condition. The grant will be made at the end of the year after the inspection of the bull and would be renewable at discretion, year by year, for the same bull and on the same conditions up to a maximum of 3 years. The limit of 3 years is aimed at by the fact that every 3 to 4 years, the bull must be replaced in order to avoid in-breeding.

Conditions of grant.

(1) The bull should not be less than 2½ years when selected and sent out to stud.

(2) The bull should be well fed and maintained in good condition.

(3) A register of services should be maintained showing the dates of service, and names and addresses of cow owners and when possible sex and colour of calf. The maximum number of services should not exceed 70 and the minimum should be 40 services per year.

(4) The bull should not be allowed to run with the cows as a bull will serve one cow whilst in heat two or three times whereas only one service is necessary and so the vitality of the bull suffers through this excess. The bull should therefore be kept separately and cows brought to him.

(5) A society may fix its own scale of fees but in the case of an individual the fee may be limited to eight annas for each service.

Application for a grant of premium should be made to the Deputy Director of Agriculture of the district or direct to

The Deputy Director of Agriculture, Livestock,
Hosur Cattle Farm P O.
(Salem Dt.).

HOSUR CATTLE FARM, } R. W. LITTLEWOOD,
25th October 1928. } Deputy Director of Agriculture, Livestock.

