ESTATE FARMING IN INDIA

THE PALAYAKOTTAI CATTLE FARM

By D. Pattabhiraman, C.M.V.C., Assoc. I.D.I.

Superintendent, Kangayam Cattle Improvement Scheme, Palayakottai, Coimbatore District

Recently retired as Director of Animal Husbandry, Madras

'We mention the Pattagar of Palayakottai,' wrote the Linlithgow Commission, 'because he was almost the only herd which was brought to our notice as an outstanding example of careful cattle-breeding.' This careful breeding has resulted in the famous Kangayam cattle known all over Southern India. The breeder is Raja Bahadur Nallathambi Sankara Manohariyar, popularly known as the Pattagar of Palayakottai. His farm is one of the biggest cattle-breeding stations in India and its activities have been publicly recognized for the last 40 years.

The Pattagar traces his ancestry to 1000 B.C. In recognition of the help given to the Pandya kings by his forefathers, they were awarded the title of Uthama Kaminda as well as powers to settle social and religious disputes in their community of Vellalas and their subcastes. The Pattagar is the religious head of his community: the title is hereditary and passes on to the eldest son.

The present Pattagar's grandfather was the first to take an interest in cattle-breeding. His work was continued by his son, but he did not live long to enjoy the fruits of his labour. The present Pattagar, who was only seven when his father died, carried on the tradition, declining the advantages of an English education. So great was his concentration on cattle breeding that he increased his herd from 100 to 2,000 head and established it as the Kangayam breed.

Cattle-breeding country

The farm is situated in Pudur village in the Dharpuram taluka of Coimbatore district. The area is well suited to cattle breeding. The soil is red-loam, full of canker gravel known as 'odai jelly', and is supposed to be the best land for rearing cattle. Such soils are known to be cool and, though

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shallow, are retentive of moisture sufficient for raising pasture. It is, however, a dry tract where the cultivator has to depend upon the monsoon. In some parts there are wells used for irrigating garden lands; and to raise water from a depth of 30 to 60 ft, the farmers require strong and efficient bullocks. Moreover, on the break of the monsoon, large areas of land have to be prepared and sown before the soil dries up and for this quick work efficient bullocks are very necessary.

Bullock power indispensable

Where small holding are the rule and the use of machinery for agricultural operations uneconomic, bullock power is indispensable. Realising this, the Pattagar took pains to develop his herd on a large scale and in a systematic and scientific manner.

The Pattagar is the largest landowner in the Coimbatore district, holding about 15,000 acres of which 5,000 acres are not set apart for grazing the herd. To improve his land numerous wells were sunk at an enormous cost as the subsoil is rocky. Thus large areas were brought under cultivation. The crops grown are paddy, cotton, ragi (Eleusine coracana), chowam (Sorghum vulgare), chillies and sugarcane, chiefly irrigated by well water. During the monsoon nadiam cumbi (Pennisetum typhoidesum) and chowam are grown. The rest of the estate is leased to tenants on condition that a member of the family works on the Pattagar's farm for Rs. 100 per year and the midday meal. The estate is divided into a number of fields which are thickly fenced with mulukhvi, a thorny shrub (Balsamodendron Berry) which is highly drought resistant. This fencing is unique and is rarely seen outside the Coimbatore district. Each tenant is instructed to confine his animals within his own land and at night they are kept in the fields for manure.

Grasses grown

Though the rainfall may not be sufficient to grow a cereal crop, it is generally sufficient to raise a crop of grass. The chief grass is kohilakattai (Pennisetum cenchrotides). It is a thick, succulent grass which maintains its vitality during severe drought. It seeds freely and sheds seeds easily. Hence a few showers will make the pasture very green. Other varieties of grass found in the pasture are given below:

<table>
<thead>
<tr>
<th>LOCAL NAME</th>
<th>BOTANICAL NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kolakkattai</td>
<td>Cenchrus ciliaris</td>
</tr>
<tr>
<td>Vennampul</td>
<td>Trachys murieta</td>
</tr>
<tr>
<td>Ottampul</td>
<td>Setaria viridada</td>
</tr>
<tr>
<td>Kollapul</td>
<td>Chloris barbata</td>
</tr>
<tr>
<td>Cholapul</td>
<td>Chrysopepon montana</td>
</tr>
<tr>
<td>Naripayathankodi</td>
<td>Phaseolus trilobus</td>
</tr>
<tr>
<td>Seppvieringi</td>
<td>Indigofera uncaliglypta</td>
</tr>
<tr>
<td>Sanarikodi</td>
<td>Merremia tridentata</td>
</tr>
<tr>
<td>Poonaupsukukodi</td>
<td>Crotalaria glabosa</td>
</tr>
<tr>
<td>Dadora</td>
<td>Boraria hispida</td>
</tr>
<tr>
<td>Harisli</td>
<td>Cynodon dactylon</td>
</tr>
</tbody>
</table>

1 Two varieties are found, one with purplish spike and the other with whitish spikes; the purplish variety is found to be more nutritious on analysis. It is known in North India as organ.

On the outbreak of the monsoon the cattle are sorted out according to age in three classes: below one year, one to two years, and two to three years. They are also segregated according to sex and put into the grazing areas in batches of 20 to 50 according to the availability and extent of pasturage. Bulls ready for sale are given preferential treatment; so also weak animals that do not thrive in a large herd are put in smaller batches of 10 to 15. The grazing areas are provided with wells which are sloped in such a way that the cattle can get into them and drink water freely.

Uses of the babul tree

An interesting feature of the grazing areas is the wide prevalence of white babul trees (Acacia alba). They provide shade for the animals at midday, and during the podding season supply pods for the cattle to eat. During the season the pods are collected and stored and used with concentrates much in the manner of sugar with coffee. The Pattagar believes that the feeding of the pods improves the coat and the milk yield of the animals. On analysis, it was found that they have good feeding value. The results of the analysis are interesting:

<table>
<thead>
<tr>
<th>Moisture</th>
<th>7.33</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ash</td>
<td>6.84</td>
</tr>
<tr>
<td>Crude protein</td>
<td>14.86</td>
</tr>
<tr>
<td>Ether extract</td>
<td>2.16</td>
</tr>
<tr>
<td>Crude fibre</td>
<td>11.50</td>
</tr>
<tr>
<td>Carbohydrates</td>
<td>57.80</td>
</tr>
</tbody>
</table>

The pods can be powdered and fed along with concentrates in quantities of 1 to 2 lb. per animal.

The white babul tree has numerous uses for the farmer. It can be made to grow easily in waste lands, catchment areas, lake and field bunds and in grazing areas. It grows wild and no care is necessary. It is highly drought-resistant. The trunk provides timber for building, furniture, agricultural implements and bullock-carts. Thorny twigs are useful for fencing the fields and small branches are used as pegs to tie up animals. The trunk is soaked in water for three months before being sawn into planks, and the longer it is under water the more durable it becomes. If the tree is not suitable for timber it can be used for firewood. The white babul tree grows easily, on a soil with plenty of calcium in it. The value of a tree after 10 or 15 years is Rs. 10 to 15 and the farmer gets this for nothing.

Cattle left in the open

Manure is not collected in the grazing area and the land is ploughed once in four or five years and brought under cultivation and the grazing area is
changed. By leaving the cattle out day and night for months in the grazing area they become hardy and can endure all kinds of weather. Within the Pattagar's experience there has not been a single case of snake-bite or other accident.

The Pattagar breeds horses and sheep as well on a small scale. He had a large number of horses, but with the increasing popularity of motor transport he had to reduce his stock. At present he has only 30 mares but proposes to develop this side of his activities. He has 2,000 head of sheep of the hairy mutton variety kept mainly for manuring his garden land. He recently started to breed woolly sheep and as a foundation stock of 30 wolly ewes of the Coimbatore variety and one Bikaner ram given by the Livestock Department. There is also a small herd of Amrit Mahal cattle bred separately from the Kangayam.

The Kangayam breed

It is with the Kangayam breed, however, that the Pattagar made his reputation. The breed derives its name from the Kangayam division of the Dharapuram taluka where this type of cattle has been in existence. In its purest form the breed can be seen on the estate of the Pattagar and at the Government Cattle Farm, Hosur. The Kangayam is a medium sized animal although large specimens are sometimes seen.

It is purely a draught type and is smart, active and brisk in appearance. It is the best draught breed in South India. It is a hardy animal, an excellent breeder and thrives on scanty rations. It has a good constitution and a fiery temper.

The Pattagar has 300 cows, all selected from good lines. They are never sold outside the estate. The cows are said to calve every year, and if there is any irregular breeder, she is sold to a tenant who uses her for work. The calvings average 12 and the maximum is 17, but there are no authentic records to prove this statement. The colour of the cow is grey or white with black markings just above the fetlocks, on the forelegs and in front of the forelegs. Some cows have dark grey markings on the body and the face which are not desirable but do not constitute a disqualification. Mature cows weigh from 700 to 800 lb. Kangayam cows are poor milkers; but good milkers are also to be found, giving 18 to 20 lb. at their peak. No milk recording is done for the Pattagar's herd; but a scheme financed by the Imperial Council of Agricultural Research is in operation with a view to improving the milking qualities of the Kangayam breed without impairing the draught qualities of the male. Cows are tied in open yards and milked both morning and evening. Calves are allowed to suckle their dams for two months, and as the calf advances in age milk is drawn from the cow. If the cow is a poor milker all the milk is left for the calf. Concentrates are fed twice a day only when there is scarcity of grazing. The cow is taken to the bull when it comes into heat for the first time after calving, which is generally between 90 to 100 days. The price of a cow is from Rs. 250 to 500.
### Measurements in inches of Kangayam Animals at the Palayakottai Farm

<table>
<thead>
<tr>
<th>Particulars of measurements</th>
<th>Bulls</th>
<th>Cows</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Maximum</td>
<td>Minimum</td>
</tr>
<tr>
<td>Height behind hump</td>
<td>54</td>
<td>51</td>
</tr>
<tr>
<td>Length from point of shoulder to pin bone</td>
<td>63(\frac{1}{2}) 60</td>
<td>56</td>
</tr>
<tr>
<td>Length from angle of hip to pin bone</td>
<td>21 (\frac{1}{4}) 18 (\frac{1}{2})</td>
<td>18</td>
</tr>
<tr>
<td>Height at angle of hip</td>
<td>54</td>
<td>50(\frac{1}{2}) 52</td>
</tr>
<tr>
<td>Width between angles of hips</td>
<td>20</td>
<td>17 (\frac{1}{2}) 19</td>
</tr>
<tr>
<td>Height at pin bone</td>
<td>49(\frac{1}{4}) 44 (\frac{3}{4}) 47(\frac{1}{4})</td>
<td>46</td>
</tr>
<tr>
<td>Length of tail</td>
<td>53</td>
<td>46 (\frac{1}{2}) 48</td>
</tr>
<tr>
<td>Length of tail from end of switch to ground</td>
<td>83 (\frac{1}{4}) 72 (\frac{3}{4})</td>
<td>72</td>
</tr>
<tr>
<td>Girth</td>
<td>76</td>
<td>69 (\frac{1}{4}) 74</td>
</tr>
<tr>
<td>Height at point of elbow</td>
<td>34(\frac{1}{2}) 27 (\frac{3}{4}) 29(\frac{1}{4})</td>
<td>29</td>
</tr>
<tr>
<td>Circumference of bone below knee</td>
<td>8 (\frac{1}{4}) 7 (\frac{3}{4})</td>
<td>6(\frac{1}{2}) 6 (\frac{3}{4})</td>
</tr>
<tr>
<td>Length of face from occipital crest to upper edge of muzzle</td>
<td>20 (\frac{1}{4}) 18 (\frac{1}{2})</td>
<td>18 (\frac{1}{4}) 17 (\frac{1}{2})</td>
</tr>
<tr>
<td>Width of face above eyes</td>
<td>9 (\frac{1}{4}) 9 (\frac{1}{2})</td>
<td>8 (\frac{1}{2}) 8 (\frac{1}{4}) 7 (\frac{1}{4})</td>
</tr>
<tr>
<td>Length of lower surface of ear</td>
<td>73 (\frac{3}{4}) 75 (\frac{1}{4})</td>
<td>73 (\frac{1}{4}) 71 (\frac{1}{2})</td>
</tr>
<tr>
<td>Width of ear</td>
<td>6 (\frac{1}{2}) 6 (\frac{1}{2}) 6 (\frac{1}{2})</td>
<td>6 (\frac{1}{2}) 5 (\frac{1}{2}) 5 (\frac{1}{2})</td>
</tr>
<tr>
<td>Slope of rump</td>
<td>63 (\frac{1}{2}) 3 (\frac{3}{4}) 5</td>
<td>61 (\frac{1}{2}) 31 (\frac{1}{4}) 5</td>
</tr>
<tr>
<td>Length of horns</td>
<td>18 (\frac{1}{2}) 13 (\frac{3}{4}) 15 (\frac{1}{4})</td>
<td>21 (\frac{1}{4}) 17 (\frac{1}{4})</td>
</tr>
<tr>
<td>Thickness of horns at base</td>
<td>14 (\frac{1}{4}) 10 (\frac{1}{4}) 12</td>
<td>14 (\frac{1}{4}) 10 (\frac{1}{4}) 9</td>
</tr>
<tr>
<td>Length of tail up to the switch end</td>
<td>34 22 (\frac{3}{4}) 32</td>
<td>31 26 29</td>
</tr>
<tr>
<td>Weight of an animal (calculated) lb.</td>
<td>1213 874 964</td>
<td>838 570 723</td>
</tr>
</tbody>
</table>

The Pattagar does not sell milk to the public. The daily output is 300 to 400 lb. of milk most of which is used in the household and some converted into ghee.

**Treatment of calves**

Kangayam calves are generally red in colour at birth, with black markings over the coronet and fetlocks on all the four legs and sometimes on the knees. Inside the thighs and forelegs the colour is white. The red colour gradually changes into grey in three or four months. At birth male calves weigh 48 lb. and female calves 46 lb. on the average. No treatment is given to the umbilical cord of the calf and so far no cases of navel sepsis have occurred.
For the first six to eight weeks the calf is allowed as much milk as it wants and is kept tied and muzzled. After that green grass is put before it, and when it has learned to eat, it is turned out to pasture along with other calves. The milk given to the calf is gradually reduced until it is weaned. In the case of promising calves and also when the calf does not get sufficient milk from its dam, milk drawn from other cows is fed to the calves by hand or it is allowed to suckle other cows. Calves do not get any concentrates until they are weaned.

A male calf is worth Rs. 70 to 100 immediately after weaning.

The Pattagar keeps the herd pure by a careful selection of sires from his own herd. He maintains four or five lines. Bulls fit to be issued for breeding are turned out in good pastures. Formerly only bullocks were sold. Now owing to the increased attention paid by the Government in grading up village cattle there is a good demand for bulls. The Pattagar issues nearly 100 breeding bulls every year to the Coimbatore District Board and the provincial Government for grading up village cattle.

The bull is grey in colour, with dark grey to black markings on the legs, head, hump, shoulders and quarters. After castration the black marking gradually disappear in three or four months and change uniformly into grey. The weight of a mature bull is 1,000 to 1,200 lb. Bulls are ready for issue at three years and are at stud for four or five years afterwards. They are then castrated. The average price of a bull is from Rs. 250 to 500.

The heifers are mated only at three years of age. The Pattagar allows a bull to a batch of 30 heifers in the grazing area for three months: within that time it is presumed that all the heifers have covered. The heifers are not sold, but the cost of a good heifer is from Rs. 200 to 400.

Virtue of the bullock

Bulls that are not fit to be issued for breeding are castrated when they cut the first pair of incisors. At four teeth they are trained for ploughing and at six teeth for mhote work. The castration is generally done at the beginning of November every year, for the season is cool and plenty of grazing is available. In the past castration was by the country method—mulling—which is a painful operation. This has been replaced by the Burdizzo method and is carried out by the staff of the Veterinary Department. Soon after castration the ears of the animals are trimmed by the Pattagar himself or by his trained assistants. His view is that short, trimmed ears give an alert appearance to the animals. The Pattagar maintains about 120 pairs of animals for operations on his farm such as ploughing, mhote and cart work. About 100 pairs of work cattle are sold every year. The bullocks are grey in colour; they are hardy and compact; with thick neck, short and strong limbs and well-sprung barrel. They have a working life of 15 years. The bullocks are in demand in the south for black-cotton soil cultivation and for mhote and road work. The Kangayam bullocks are sold at a premium, for they are good workers and thrive on scanty rations. They last 9 to 10 years at the mhote, whereas other breeds do not last for more than six or seven years. The weight of a bullock is from 1,000 to 1,400 lb. and the price of a pair of bullocks ranges from Rs. 300 to 1000.

The Pattagar raises fodder crops adar-cholam, i.e. close or crowded, as they are sown thickly so as to yield heavily and secure thin stalks. The fodder crops are raised in garden lands irrigated by wells. After harvest the straw of paddy, cumbu, cholam, ragi, etc., is stored for feeding the animals. No silage is prepared, but it will be from this year. A beginning has been made with the cultivation of lucerne, Guinea grass and maize. There have been frequent fodder famines in the area in which the Pattagar's farm is situated and large quantities of fodder have had to be imported from adjoining districts such as Salem and Thanjavur and cattle have had to be sent for grazing to distant forests. Periodical famines have caused fluctuations in the size of his herds.

Concentrates used

During the grazing season concentrates are not fed to any of the animals except the breeding bulls. During the summer months, when there is practically no grazing, concentrates are fed to cows in milk, bulls intended for sale and bullocks twice a day. The concentrates used are groundnut cake, rice bran, cottonseed, residue of grain crops such as cholam, ragi and cumbu soaked in water and white babul pods. They are crushed and fed with plenty of water in tubs. The tubs are made of stone and are held for 60 animals at a time. There is one attendant in charge of two animals: he supervises them and sees to it that each gets its due share.

Black gram, horsegram and fenugreek are soaked and ground into a paste and mixed with concentrates and fed to the animals intended for sale. Ghee and powdered jaggery is also given, a handful to each animal. This special feed is said to improve the coat.

Cups and medals

As the animals are accustomed to semi-ranch conditions until three years of age, great skill and patience are required in training them. First of all they have to be roped and nose-strung. There is a special enclosure of masonry walls, 10 ft. high, into which the animals are turned and then roped by an experienced attendant. They are then nose-strung and tied to a peg with a leading rope for a few minutes to start with as otherwise accidents are likely to happen since the animals resent tying up very much. Strong ropes are used and the pegs are firmly driven into the ground. In the course of a week the animals get accustomed to being tied up.

The Pattagar personally supervises the preparation of animals for cattle fairs. It is heartening to see all his animals tied up evenly in an open yard in straight lines in batches of 30, each 20 ft. apart and in rows of five to ten. The animals are washed daily, groomed and fed well. Even forced feeding is done to bring them into extra condition. There is a ready market for the animals at the Kannapuram and Tiruppur cattle fairs held in April and June respectively. The preparation of the animals starts about two months in advance and by the time they are taken to the fairs the animals attain show condition. The Pattagar's cattle exhibited at shows and fairs have earned high praise year after year. Invariably he wins gold medals and breed championship cups.
Testimonies

Extracts from the visitors' book at the Palayakottai Farm

1. 14th December, 1913

Mr. Hemingway and the Hon'ble Mr. Carr and I have been very kindly shown round by the Pattagar. It is the best breeding establishment I have seen in India. His division of his stock by sexes, ages, both for grazing and in stall is of the greatest importance in successful cattle breeding. I hope he will be careful to keep his strain of Kangayam absolutely pure.

D.T. CAADWICK
Director of Agriculture

2. 24th October, 1916.

I wish to thank the Pattagar for his hospitable welcome and for the pleasure of seeing his fine cattle. He is doing splendid work for the farm stock of the Presidency and I have no doubt that he will succeed in his end. His example may, I trust, be followed by others.

PENTLAND
Governor of Madras.

3. 27th November, 1919.

It is extremely agreeable to me to mention here the beautiful impression made on me by this visit to the establishment of the cattle farm of the Pattagar of Palayakottai, noble cavalier of advanced spirit, from which progress of Indian Cattle, especially cattle breeding in the Madras Presidency should much expect.

Rearing and selecting the bovine race "Kangayam," one of the best known of the continent by beauty of form and qualities which are appreciable in work—this by itself constitutes a title of glory which most distinguished farmers of Nations where pure breed is appreciated would be proud.

If I could draw up in due form, a wish of mine would be that the well-known chief of Palayakottai should go on without disheartening in his role and that his magnificent example may benefit the progress of agricul-
toral of this admirable country.

ANTONINO NEVES
(Translated from French) of Rio De Zenero Brazil
South America.

4. 2nd October, 1920.

I have much pleasure in recording this visit of mine to the Cattle Breeding Station of the famous Kangayam Cattle. It has been a great pleasure to me to see these cattle and the strain of horses that the Pattagar is breeding with so much success. And I am sure that the fact of the Pattagar breeding such strain on the right lines will have an inestimable effect on the agriculture and in particular on stock breeding in the Presidency.

And I am sure that the Pattagar is deserving the success he has attained by the way in which he has worked and studied for the advancement of his cattle and horses.

Captain MARSHAL
Agricultural Department, Ceylon

5. 3rd October, 1920.

A few hours can be profitably and fully spent at the "Kangayam Cattle" Farm at Palayakottai. I regret that my visit was of such short duration. However, through the excellent arrangement made by the Pattagar of Palayakottai the time was full of interest. After the recent rains, the 'Koluk-kattai' grass pastures looked fresh and green and the sight of the fine herd of Kangayam cattle grazing in the fields was one to gladden the heart of the serious stockman.

The improvement of the South Indian breed of cattle carried out in the Pattagar's own practical way is an object lesson to all who wish to see the Madras Livestock Industry prosper. What has been done and achieved should not be imitated. I have no doubt equal results will be gained by those who tackle the problem with the same energy and foresight shown by this owner. Personally I am much indebted to the Pattagar for the delightful hospitality extended during my visit.

R.C. BROADFOOT
Deputy Director of Agriculture

6. 3rd October, 1929.

Among the most interesting days of my life will stand out the visit to the Estate of the Pattagar of Palayakottai. One cannot raise fruit, nor grain nor cattle without giving close personal attention over a long period of years. In the west, our best breeds of cattle represent the long time careful work of some English landlord. Evidently the Pattagar will perform that service for India. May he live and prosper in his work is the wish of

ARTAUR E. HOLT
JOHN B. HOLT
Chicago H. U. S. A.
(University Professors)
7. 8th October, 1930.

I have been most interested in seeing the Pattagar's famous herd, and only wish I could spend more time studying these cattle. As one who has always taken great interest in cattle breeding I was much struck with healthy condition of all the stock and the excellent condition under which they are maintained.

It is very evident to anyone with a knowledge of stock breeding that the correct principles of breeding are adhered to and I feel that every possible use should be made of this carefully bred herd to improve the cattle of this area, for which they are evidently suitable.

COLONEL OLIVER
Expert Adviser in Animal Husbandry
Imperial Council of Agricultural Research

8. 6th July, 1931.

Having already seen and admired the Pattagar's cattle at the Tiruppur Show, I was delighted to have an opportunity of seeing over his farm. I have been astounded at the excellent results he is obtaining under such difficult circumstances and my visit has profited me considerably.

P. R. GLANVILLIE
Agricultural Department, West Africa

9. 15th May, 1931.

I have never seen anything in any country to equal what the Pattagar was kind enough to show me today. This herd of cattle is quite unique and repays him for the immense trouble he has taken to improve the breed. I was practically struck by the fine level of excellence he has attained and by the healthy condition of the animals. It was altogether a most interesting experience and one that I shall not readily forget. I am grateful to the Pattagar for having given me such pleasure.

GEORGE STANLEY
Governor of Madras

10. 17th October, 1935.

Although the very useful work which was being carried out by Mr. Pattagar in the way of cattle breeding was not unknown to me, this is the first time I visited his estate in the course of my duties to advise him on the scheme for starting a dairy farm in conjunction with his present cattle breeding activities. Every moment of my time spent there, since my arrival, has been of great interest. All that I saw came up to my expectations which I had based on the accounts given to me. The work he does should certainly prove an object lesson to all interested in this important industry and would be a revelation to those who think that sound principles of cattle breeding are not understood and practised in this country. Every animal seen in the herd was a product of sound animal husbandry and the herd as a whole could compare very favourably with the best of herds seen in this country. Mr. Pattagar's skill as an expert stock-bred and the herd has built up by the sorghum and pasture areas, the like of which is seldom to be seen in this country. Through his foresight he now realizes that with the advent of mechanical transport and electricity in rural areas, breeding cattle merely for draught requirements cannot be the best proposition and this work must therefore be associated with dairy farming. I fully concur with him in this view and I wish him all success in the project under consideration and which I consider quite sound. I shall always be happy to be of further help and guidance to him in the matter.

J. A. P. R. KOTHAVAULA
Imperial Dairy Expert, Bangalore

11. 12th May, 1936.

I visited the Pattagar's establishment with a party of students from the Besant Memorial School, Adyar, and all of us were greatly impressed by the extraordinary efficiency of the place and the sincere, open-hearted hospitality of the Pattagar and his splendid staff.

The Lord SRI KRISHNA was a "cattle man" and the Pattagar follows his example in many ways, thus making his life a benefit to those around him even as SRI KRISHNA did.

YELIX LAYTON
Detroit, U.S.A.

12. 19th October, 1937.

I was delighted to have the opportunity of seeing the cattle this morning. They are a splendid herd and I only wish that more cattle breeding on this scale was being done in other parts of the Presidency. I sincerely congratulate the Pattagar on the great work that he is doing for the improvement of livestock in South India and I was most interested in everything that I saw.

ERSKINE
Governor of Madras.

13. 14th December, 1937.

After a two months' tour of India spent in the observation of agricultural methods, it is pleasing indeed to find one independent breeder whose attention is directed towards improvement of the country's cattle. I am greatly indebted to the Pattagar for his kind hospitality.

A. E. SEATHIE
Senior Agricultural Officer, Nigeria.
14. 27th March, 1938.

I am extremely pleased to have had the opportunity of visiting the cattle farm kept up by my friend, Raj Bahadur Nallathambi Sarkarai Mandradiar, the Palyakottai Pattagar. So far as I know, this is the biggest cattle farm owned and successfully run by a non-official. Mr. Pattagar has developed a really successful cattle breeding science which will stand in good stead for many decades. He has been particularly successful with Kangayam breed of cattle. I heartily congratulate him for his great tact and ability in this particular science. I wish the farm every success as it meets an immediate need in the spread of a useful animal stock in our province.

I. MUNISWAMI PILLAI
Minister for Agriculture and Rural Development

15. 24th April, 1938.

We spent a most interesting morning in going round the Cattle Farm. The business conducted by the Pattagar is undoubtedly to the benefit of the country and agriculturists. The cattle in spite of the season are in excellent condition. The farm has had many visitors who seem to have been favourably impressed. The stud bulls available for sale at the Farm ought to be more widely purchased for the improvement of stock. We wish the enterprise continued success.

A. C. WOODHOUSE
F. G. STANES
Coimbatore

16. 27th October, 1938.

I have visited this cattle farm this afternoon. It is a very big and unique service which the proprietor has been rendering to the country. Our visit is a surprise visit and we found the animals in best spirits and best condition. They constitute a type of their own. This business deserves every encouragement from the public as well as the Government.

T. PRAKASAM
Revenue Minister
Government of Madras

17. June, 1939.

I have had a most interesting visit to Palyakottai to see the Pattagar's herd, which is an education to inspect and most valuable asset to Madras. I have discussed with Mr. Littlewood and the Pattagar a scheme to evolve a "utility" animal from his Kangayam. I trust he will succeed in getting a much higher milk yield and so make the herd of still greater value to the Pattagar.

P. JOHN, I. V. S.
(A. H. C. Government of India)

18. 7th February, 1941.

The Pattagar of Palyakottai maintains the best breeding herd of cattle in India that I came across during four months of official travelling in India. His work should be regarded not so much as a private business for personal gain but as a national service, for, in spite of modern scientific invention, the prosperity of Indian agriculture will continue to depend on its cattle and nothing is so important as the maintenance and the improvement of the more important breeding of draught cattle.

E. RODIGO
Director of Agriculture, Ceylon

19. 19th December, 1942.

It is nearly 22 years since I first visited this estate and I have been visiting it on and off for the last 20 years and I very much regret that this is my last visit as I am due to retire very soon. It is always a pleasure to come here and see the excellent herds of cattle and the way they are maintained. I think the Pattagar has greatly improved his herd of cattle in the time I have known it and I sincerely hope that he will continue in these lines. The experiment which is being conducted under the I. C. A. R. to find out if it is possible to evolve a higher milking cow without impairing the draught qualities of the bullock should be closely watched and it is to be hoped that it will prove a success.

This must be one of the largest farms in India farmed by an individual and the reclamation which the Pattagar has done is a credit to him. He is an excellent farmer and devotes his life to agriculture and it is very much regretted that other large Zamindars do not copy him.

I wish the Pattagar further success and my best wishes.

It looks as if there will be a shortage of fodder in this District this year as the rains failed at the proper time and if this occurs I hope the Pattagar will be given some assistance to purchase fodder in the cheap markets as his excellent herd must be maintained.

Well. Good-bye, Pattagar. I thank you for your kindness. I hope I have been of assistance to you.

R. W. LITTLEWOOD
Livestock Development Officer.

20. 2nd September, 1943.

It would have been a thousand pities to leave South India without seeing the Pattagar's splendid farm and having an opportunity of photographing his mild and magnificent bulls. When one sees the Kangayam bulls and cows, one understands very well the veneration accorded to these animals since time immemorial in India. I shall long remember my visit and the really delightful hospitality of the Pattagar and the long suffering help his representatives gave me in getting some photographs.

STAN HARDING
21. 5th March, 1944.

It is a real pleasure to record my visit to Palayakottai and also to record my deepest appreciation for the kind hospitality extended by the Pattagar and his family and his staff. It is obvious that the Pattagar has an "eye" for cattle, and that he has consistently selected and bred towards a definite ideal. This is the essence of success in any attempt at Livestock Improvement; and the farm and its owner are to be commended for the success thus attained, and for the coincident service to the cultivators of Southern India by supplying improved working bullocks.

RALPH W. PHILLIPS
Bureau of Animal Industry
U. S. Department of Agriculture
Washington, D.C., U.S.A.

22. 26th July, 1944.

As long as such cattle are reared in India as I have seen this morning on the Pattagar’s farm there can be no question of the country’s ability to lead the world in the production of draught cattle. It has been a great pleasure to see such a fine stock and to learn the views and opinion of such a master-bredner as the Pattagar of Palayakottai.

G. W. WILLIAMS
Animal Husbandry Commissioner.

23. 22nd January, 1945.

It gives me great pleasure to place on record that I have just spent two most pleasant and profitable days here, going round the farm of Pattagar of Palayakottai. It has been a matter of great joy for me to see such a big uniform herd of cattle kept in such an excellent condition. To one whose chief interest lies in the science of breeding it has been a great experience to see what the ‘craft’ can do towards breed improvement. My only regret has been that I could not come here a few months earlier while the late Pattagar, that Master-bredner, who developed this excellent herd, all in his lifetime, was still alive. I feel that I have missed a real opportunity in life. I leave this place with the hope that the present Pattagar will continue to follow in the foot tracks of his late illustrious father. The heritage that has been left to him is a very valuable one indeed.

I have been charmed with the excellent hospitality extended to me by the Pattagar during my stay here.

P. BHATTACHARYA
Officer-in-charge, Animal Genetics Section,
Imperial Veterinary Research Institute
Izatnagar (U. P.)

24. 7th June, 1946.

I am thankful to the Pattagar who is following the great traditions of his illustrious father, for his having shown me round this interesting cattle farm. This is a great service which the Pattagar is rendering to the people of this land. He has been wonderfully carrying on in spite of the handicaps of the weather.

M. BHAKTHAVATSALAM
Minister in charge of Public Works

25. 22nd April, 1947.

It is with satisfaction that I see the successful manner in which the new Pattagar is following the footsteps of his father. If to the natural gifts he has inherited he has a clear conception of his aim and the persistence and patience of his predecessors, the renowned herd of cattle must continue to flourish.

The Pattagar is wholeheartedly supporting the Indian Council of Agricultural Research in the work of investigating the potentialities of the Kangayam Breed, although that undoubtedly involves a considerable amount of inconvenience and a certain amount of expense on his part. The information already obtained however promises to be of use to him in indicating lines of advance in breeding and economy in management. What is more important, it affords the kind of valuable data upon which plans for the development of the cattle of the country can be based. I offer my congratulations on the success of his first year's work and I wish him very many years in which to repeat it.

G. W. WILLIAMS
Animal Husbandry Commissioner with the Government of India.

26. 15th June, 1947.

It is a great privilege to have seen Palayakottai Pattagar’s cattle farm. Every Indian can be proud to see and learn from this farm what the cattle wealth of India can be if improved and worked properly. I hope everyone who has any interest in our country’s cattle wealth will be able to see this ideal farm. God help the family and bless them with all that is good so that they will be a help and source of strength to the poor villagers around.

A. V. KUTTIMALU AMMA, M.L.A.

27. 19th June, 1947.

The whole farm is most impressive. It is run on progressive lines and has done excellent work in raising the standard of cattle in the district.
I thoroughly enjoyed my visit and congratulate all concerned.

ARCHIBALD NYE
Governor of Madras

28. 22nd June, 1947.
MY DEAR PATTAGAR SAIHER,

Their Excellencies' visit to Coimbatore District in June, 1947.

I should like to thank you very sincerely for the excellent arrangements you made for His Excellency's visit to Palayakottai on 19th June, 1947. His Excellency was much impressed and pleased with everything he saw there. I also take this opportunity of thanking Mr. Pattabhiraman for the extremely efficient way in which he conducted us round. You both made the visit a most successful and interesting one.

With best wishes,

Yours sincerely

F. W. A. MORRIS
Collector of Coimbatore

29. 3rd July, 1947.

It has been a great pleasure to not only visit the farm and witness the impressive development of this branch of Agriculture science, but also to enjoy the cordial hospitality of the host and staff. Mere words do not allow justice to be done to this experience.

STANLEY R. C. BETRAND
Public Affairs Officer
American Consulate, Madras

30. 4th April, 1945.

I was immensely pleased to see the cattle farm maintained by Pattagar here. The way in which the several types of cattle are kept and maintained and the excessive care taken in keeping the purity of the breed and maintaining a high standard is worth noting. The people in charge of the farm have kept it clean and tidy and also look after the cattle with proper care and love. It is a matter of joy to note that Pattagar himself takes personal interest in prompt supervision and attention and takes pride in his farm and the generations of breeds. My personal thanks are due to Pattagar who has shown me round with enthusiasm and presented me with the real picture of the farm. I wish all success and prosperity and also bright future to the farm which is the first of its kind in this Province.

K. CHANDRAMOULI
Minister in charge of Local Administration,
Government of Madras
31. 12th April, 1948.

This is the second time that I visit this farm. All the members of the Livestock Improvement Board are delighted at seeing this farm. It is indeed creditable that the Pattagar is able to keep his cattle in such good condition, when there is such a terrible lack of fodder all over the place. All should thank the Pattagar and the energetic Superintendent of his farm for the very good work they are doing.

K. MADHANA MENON
Minister for Agriculture and Livestock Development,
Government of Madras

32. I see that in 1923 I wrote after my visit to this farm that I was sure the Pattagar would have a big influence upon cattle breeding in India. The "best bull in the Show" given to a Kangayam bull bred in this place proves this to be true. I was proud at Delhi last month to see this honour go to South India.

I pray that God may send soon abundant rains to relieve present famine conditions here.

J. J. DEVALOIS
Principal, American Arvot Mission, Kattapadi
Member, Provincial Livestock Improvement Board

33. 6th December, 1948.

I am very pleased to have had an opportunity of going round the farm. A first class national service being done here. The good work must be continued and expanded. The founder of this farm deserves the gratitude of the public for the great service being done. I wish every success to the Institution.

H. SITARAMA REDDY
Minister for Industries and Labour,
Government of Madras

34. 24th May, 1949.

I had the very great pleasure of seeing the cattle farm here. I had long wanted to do so, because the farm's fame had long ago reached even distant Chittoor District. The display of breeds, cows and calves was extremely impressive. I had not seen a more impressive sight. While there has been talk of improving the country's cattle-wealth, this gentleman in this remote corner has been carrying on this national service for nearly half a century. There can be no doubt about the usefulness of such a farm. Only, I wish the
prices could be within the reach of a poor district like mine. I am very much surprised to learn that the farm is not even self-supporting. It would be national calamity if such an institution as this is not maintained and improved as it should be. I am glad to learn that the Government of India are taking interest in this enterprise and have appointed a technical man and staff to improve the stock. I hope that governmental help will be forthcoming even in a great measure to this farm. Mr. Pattabhiraman, the Superintendent, was very helpful in taking us round and explaining the whole working of the farm. I wish it all success for all time.

A. RAMAKRISHNA RAJU  
President, Legislative Council, Madras.

35. 31st July, 1949.

The Pattagar is carrying out a very valuable breeding of Kangayam breed. This work is not only helps the Animal Husbandry but also crop husbandry, which is the backbone of the country.

I spent only a day on the farm and during the short stay gained valuable practical points in breeding work.

I enjoyed very much the hospitality of the Pattagar and I am very grateful to him.

I wish the Pattagar all success in his undertaking.

I. KANAKARATNAM
Fed. Experiment Station, Department of Agriculture, Beri, Malsya

36 6th January, 1950

I esteem it a great privilege to be able to see the wonderful herd of cattle developed by the Pattagar and his family. Although I could not claim to be an expert, I may say that the uniformity and character of the herd is very impressive. So, I wish to congratulate the Pattagar and all his staff on the work they are doing. This will be one of the highlights of my visit to India.

ARTHUR W. ASHBY  
Agriculture Economic Research Institute, University of Oxford

37 17th February, 1950

It is indeed a rare privilege to see a private landlord devoting his time and money for the upbreeding of cattle. His services to the country are immense. Even a Government farm of this magnitude has not yet been esta-


38. 3rd June 1950

I had the pleasure of visiting the Palayakottai Cattle Farm maintained by the Pattagar. The cattle breeding done on scientific lines is remarkable. It speaks volumes about the innate bias for cattle breeding and the interest taken by the late Pattagar, which have developed intact in his worthy son, the present Pattagar. This cattle breeding centre is really one of national pride. I am sure it promotes the cattle wealth of our country.

P. S. KUMARASWAMI RAJA  
Chief Minister, Madras State

39. 23rd June, 1950

It was a real pleasure for me to visit this well-known Cattle Farm this forenoon. Probably there is no other private breeder who posses such a farm and maintains it so well in any other part of the country. The breeding done here on scientific lines and the maintainance of pedigrees and other registers can well serve as an object lesson to people who run Cattle Farms or those who are interested in the improvement of cattle. I trust that the experiment that is being carried on here in improving the milk yield of the Kangayam cattle will give sufficiently encouraging results very soon. The Farm must be an object of pride to the Government as well as the people and the work done here deserves all help and sympathy.

A. B. SHETTY
Minister for Agriculture

40. 31st December, 1950

I have been hearing of this cattle farm since nearly two decades. Though I have been longing to see, I could get an opportunity now only. I thoroughly enjoyed my visit. No individual could do it better. It is a service to the Nation and I wish others would copy. Let me congratulate the Pattagar and wish him further success.

SANJIVA REDDY
Minister for Prohibition Housing and Forests, Madras

41. 13th January, 1951

My visit to this cattle Farm run by the Pattagar of Palayakottai is one of interest and fine instruction. Without any aid from Government the
Pattagar family have been working at cattle breeding in a manner worthy of emulation. I am sure the young Pattagar will expand his sphere of activity and perfect it. As Deputy Minister in charge of Agriculture, I feel such efficient non-official effort should receive all assistance which the State and Central Government can give.

M. THIRUMALA RAO
Deputy Minister for Food and Agriculture, Government of India, New Delhi

42. 5th June, 1951

Having heard so much about our Pattagar's Farm, I was longing to see it. To-day, I am happy to see for myself the great work done in this farm to improve the breeds and increase the wealth of our cattle. The Pattagar family deserves to be congratulated in maintaining the farm so ably started and established by the late Pattagar. I wish all success to this national enterprise.

ROCHE VICTORIA
Minister for Food, Madras

43. 27th January, 1952

I have travelled over 9000 miles in India during a 3 month tour and this is the only farm I have visited where proper records are kept and a well-planned scheme for improvement of a breed is being carried out with energy and vision. Very much of the credit for the planning of the work is due to Mr. Pattabhiraman, whose intimate knowledge of the stock is most striking. I have greatly enjoyed my visit and am delighted to have had the opportunity of seeing this famous farm. Finally, I offer my thanks to the Pattagar, who is the driving force behind the work begun by his father.

J. P. MAULE
Director of Commonwealth Bureau of Animal Breeding and Genetics, Edinburgh

44. 22nd May, 1952

The Pattagar was kind enough to take me round and show me the famous herd of Kangayam cattle his family have been rearing. It is a fine herd of pure-bred animals of which any country could be proud of. The type is good to look at and has all the qualities required for a work animal. The pairs of bullocks that have been castrated and put to work have attained such magnificent size that would make any farmer glad to own.

The stud bulls are splendid in size, formation, hooves and legs and possess a velvety coat, which is the hallmark of a good breed.

I am informed that work is now being carried on to develop a dual purpose type and from the figures of milk yield that were shown to me I am sure the attempts will be successful.

The Government are doing work here, with willing and enthusiastic co-operation of the Pattagar to record the performances of the individual selected animals and of the whole herd which I am sure will help improve the breed further and what is more, serve as a model for work among other breeds of cattle in India.

All lovers of fine cattle in India should visit this herd.

NAGAN GOWDA
Minister for Agriculture, Madras

45. 5th August, 1952

It gave me much pleasure and also good education to have been able to visit the Palayakottai Cattle Farm of Shri Nallasenapathy Sarkarai Manadar, M.L.C. Along with members of his family and his colleagues and officers, he extended to me a very warm welcome and hospitality for which I am grateful. He certainly runs a most wonderfully complete Cattle Farm, which it is a joy to see. The bulls and cows, calves and heifers, horses and buffaloes are all very well kept and carefully looked after. Very useful statistics are maintained, and good breeds produced. There is complete co-operation between the Pattagar and Officers of Government, who extend their co-operation in the good work. Here is a genuine piece of constructive endeavour in nation-building, of which the persons concerned have every reason to be proud. They have my best wishes for happiness and success.

SRI PRAKASA
(OF SEVASIRAMA, BANARAS, U.P.)
Governor of Madras

46. 20th March, 1953

I have spent a very interesting day in Kangayam and Vellakoil Key Villages and on this famous farm. I think you are on the right line when trying to create a good dual purpose animal. The co-operation with the villagers seems to be very good and I think they will share the fruits of the really good work here. I wish you and your country every success. Thank you very much.

BENGEL LUNDGREN
Veterinary Officer,
F. A. O. Mission to India.
Kolmar, Sweden.
47. 19th May, 1953

I am very grateful for the arrangement made by you and the hospitality shown to me and my party.

I particularly enjoyed seeing the cows and the bulls and the beautiful calves that made the whole world assume a new and pleasant appearance.

C. RAJAGOPALACHARIAR
Chief Minister,
Government of Madras

48. 11th July, 1953

I have been most impressed not only by my visit to the place itself and the fine breeding results attained, but most perhaps by the integration of so many operatives that only generations of experience can produce. Now, I need only to film this as another example of what India has to show to the world.

KARL KAMB
Hollywood Film Technician.

49. 27th August, 1953

This is a wonderful cattle farm indeed. It is the largest I have seen and the most efficiently run. The success achieved in producing a dual purpose breed is remarkable and of great value both to agriculture and animal husbandry. The Pattagar of Palayakottai is a charming person who combines the best traditions of an old aristocracy with modern scientific development. His farm is a monument of enterprise and service.

JAYAPRAKASH NARAYAN

50. 8th October, 1953

I am very glad indeed to have an opportunity of visiting the Pattagar's Farm once again, after a lapse of about 17 years. It was a pleasure to see that the Pattagar was maintaining the high traditions of his illustrious father. Even though young in years, he has an excellent "eye" for an animal, and has the same keenness and enthusiasm of his father.

I was shown round the whole herd. All animals were in good condition, and what struck one straightaway was the uniformity in type, which speaks volumes for the labour and care taken in laying down breeding plans. If we could have a few more breeders like the Pattagar, the problem of cattle development in the country could be greatly solved.

While at Palayakottai, I took the opportunity of inspecting in detail the working of I.C.A.R. Scheme, which aims at putting in more milk in the herd without detriment to the draft qualities. In spite of the fact that the last few years have been "scarcity of fodder" years, the scheme on the whole has shown that the breed has considerable potentialities of a "Dual purpose" breed. The work, however, has to be continued before definite conclusions can be drawn. One step in the right direction is that all experimental animals will now have a balanced ration and will therefore be from the vagaries of rainfall in the area.

I am very grateful to the Pattagar for having shown me round and for his generous hospitality. I hope he will continue to take special interest in this unique undertaking.

P. N. NANDA
Animal Husbandry Commissioner
Government of India.

51. 11-8-1955.

I have been very fortunate to have had the privilege of visiting this remarkable Farm. Its extensive operation in cattle production facitates me. The good that has come to India will be a lasting tribute to the owner through an improved breed of cattle. I extend to you all my thanks and best wishes for your generous kindness and attention.

The lunch served me in Indian fashion will long be remembered as a genuine experience.

Many thanks.

Yours,
E. E. LEASURE,
Dean, School of Veterinary Medicine,
Kansas State College
Manhattan, Kansas, U.S.A.

52. 22-10-1955.

I visited this Cattle Farm with much anticipation from all of the things I had heard. I still had not fully understood the vastness and the fine things being accomplished. I consider it a great honour to have attended here and hope my presence was worthy of all the fine hospitality so graciously administered by the personnel.

GERALD R. HOWELL
Crawfordsville,
Internation Farm Youth Exchange

53. 26-7-1956.

I am really happy for the opportunity I have had today to see Palayakottai Cattle Breeding Farm about which I have heard so much and which is famous and well known to every animal husbandry worker in India.
In going round the Farm I have been admiring the excellent condition and health of the animals and most of all the wonderful uniformity of the breeding stock. I have also well noticed the inherited skill and responsibility of the gowals in dealing with the animals and the need for pasture lands.

I found the history of the building up of this herd really thrilling. The place might have been especially favourable for cattle breeding but I could not avoid thinking that things should have been very different in India today, if only the villagers in general of the past centuries had had a little portion of the sense and mind for cattle breeding, characterising the Pattagar of Palayakottai.

I wish to thank Mr. N. N. Sarkari Manradar, the present Pattagar of Palayakottai, for showing me all this and to express my best wishes for him and the future generations of his family in maintaining and developing this original Kangayam herd. I cannot think that any Government will ever dream about to cut anything from this piece of land; but things will rapidly change in India and it will certainly be necessary for future Pattagars to read and adjust themselves after the signs of the time.

Yours thankfully,
ERUST PALSON,
FAO Expert.

54. 4-11-1956.
Wishing greater achievements in development of livestock industry of India.
Chinese Agricultural Science Study Mission to India.
Chiang Chi-chien.

55. 5-11-1957.
The Philippines is honoured with being a guest to this Cattle Farm. I am sure I have learned many things in cattle farm management which we can apply at our country, the Philippines. We hope to introduce the fine breed of Kangayam cattle in our country.

JOSE A. CAYABYAF
Bureau of Animal Husbandry
Manila, Philippines.

56. 21-6-1958.
It is a pleasure to see this effort to improve the breed in a large scale by selective breeding. I congratulate the members of Pattagar's family for carrying on this experiment and serving the neighbouring villages. I wish all success to their efforts.

BISHNURAM MEDHI.
Governor of Madras.
21-6-58