

the plants growing in Cochin and Travancore and the plant is, therefore, not much in favour with people there. This is a matter for investigation.

**The Plant:** A perennial, succulent, non-fibrous, erect shrub, attaining a height of 1 - 1½ feet, very valuable as a green vegetable and a good substitute for *Amaranthus* with the same taste, flavour and even appearance in the preparations for the table, with the advantage over *Amaranthus* of being available through all times without any season and added quality of the preparations keeping well for over 24 hours. It is reported to be full of vitamins and as such of great dietary value to invalids and diabetics in need of vitamins.

**Root:** The tap root grows straight to about six inches in the soil. This and the side roots are tuberous and conical.

**Stem:** Glabrous, terete, tinged with purple, tender and easily breakable, herbaceous, succulent and branching.

**Leaves:** Alternate, simple, crowned at the top of the stem, ex-stipulate, decurrent along the petiole, obovate-cuneate, glabrous, green, green, above dull or feebly shining, shining below, fleshy, pinnate, emarginate; veins not prominent.

**Flowers:** Terminal panicles, peduncle long, trigonous, divided into 2 - 5 racemes; small flowers, purple, bisexual. *Calyx*: 2 sepals, free, green. *P.tals*: 5, purple, hypogynous, obovate. *Stamens*: numerous, anthers bilobed. *Ovary*: superior, round, one celled; style three - fid; ovules numerous, placentation free, central.

**Fruit:** Globose, pea-like; capsule three valved, seeds being spurted out during dehiscence; seeds globose, reniform, black and shining granular.

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### The Gir Breed in Madras State

By

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Ever since the division of India the problem of procuring good Scindhi animals from Pakistan became very difficult. While it was essential to preserve the existing Scindhi herd, the question arose whether another milch breed could be found in sufficient numbers from within the Indian Union. At the time the Sourashtra was in the throes



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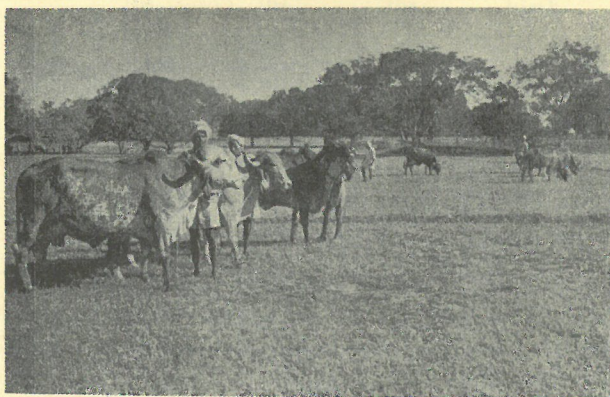
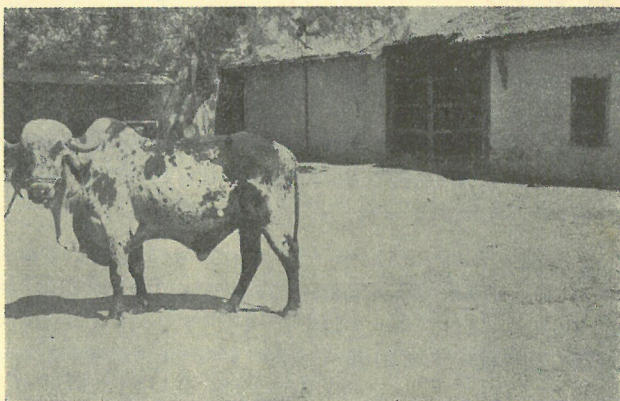
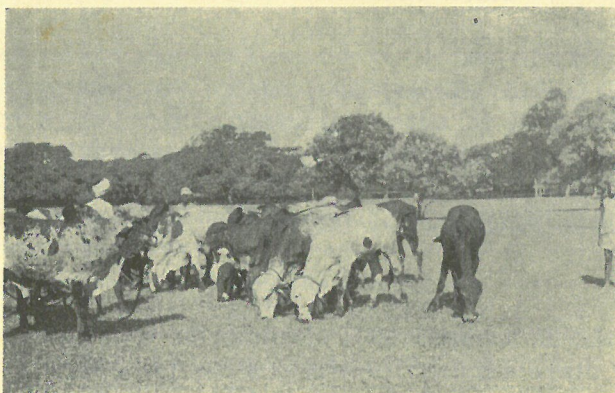
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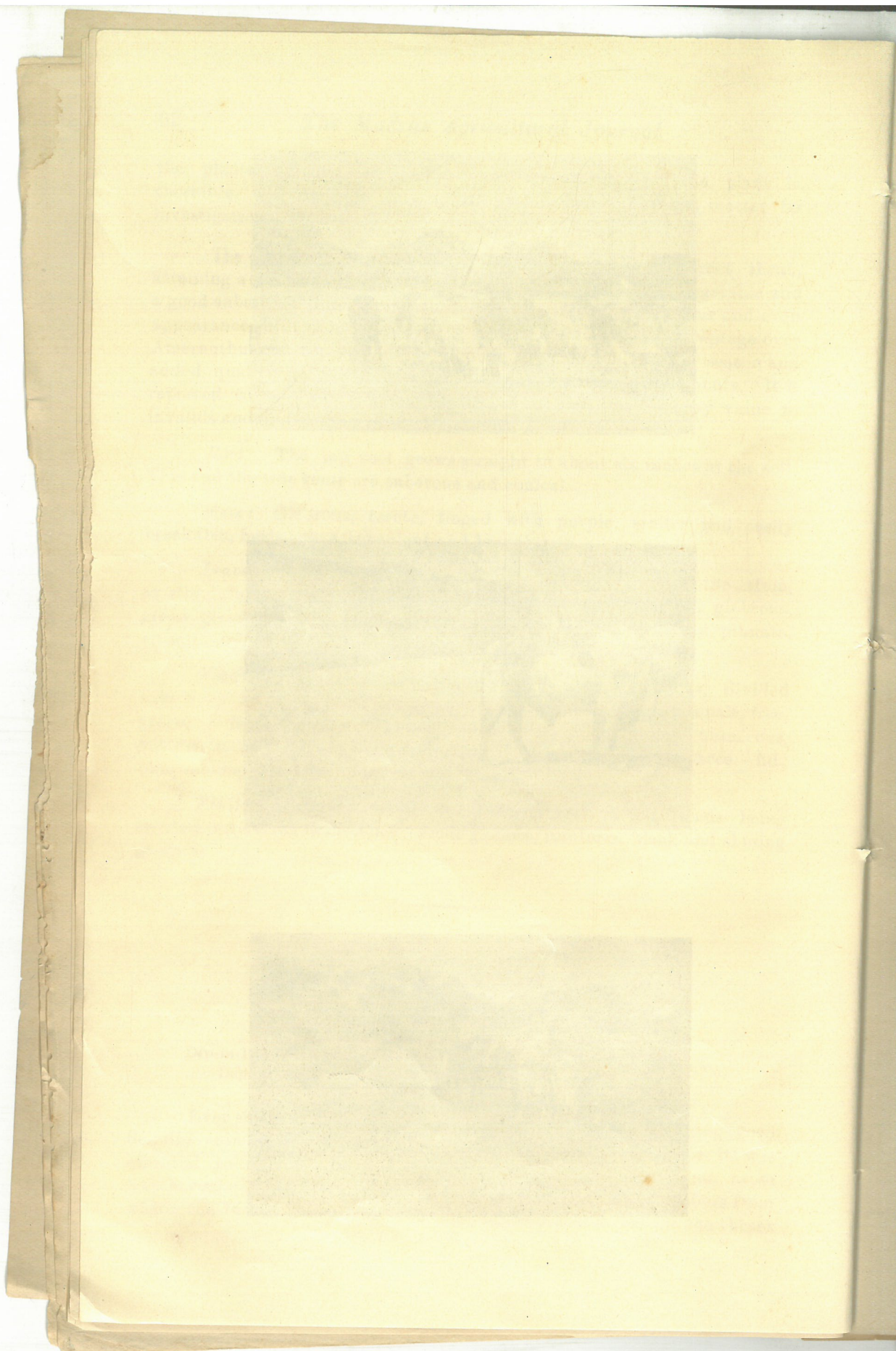
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of a severe famine and the then Governor of Madras, His Highness the Maharaja of Bhavnagar, a very keen and practical Animal Husbandry man, suggested a trial of Gir cattle in some parts of Madras State. As the Scindhis were quite successful for the southern and western districts where cattle are small and sometime too small even for Scindhi, it was considered the Gir would be useful for grading up scrub animals of the northern districts outside the Ongole breeding tract where animals are too small for the Ongole bulls and bigger than Scindhis.

With the assistance of Sourasthra Government officials and His Highness' personal staff, animals were selected with much care but under great difficulties. Thanks are due to His Highness for generously permitting sale at a nominal price some good bulls and female stock from his pedigree herd at Bhavnagar. The original intention was for stationing the new herd at the Dairy cum Bull Farm, Hanumanthawaka, Vizakhatpatam but with a view to get animals into condition quickly it was sent to Hosur Cattle Farm where conditions are favourable.

Gir breed has suffered considerably due to depletion on account of slaughter of dry animals after the milk supply at Bombay. This breed has been appreciated in the Americas for producing cross-bred milk animals. In this country, the milking quality of certain breeds particularly Krishna valley cattle has been influenced by the Gir.

Gir animals are of medium size with a well proportioned body, clear cut lines and a robust constitution. The herd at Hosur Cattle Farm has been in the open with very little shelter and they have done quite well. Comparative figures with regard to weight, lactation etc. for the breeds in Madras State are given below :

Breed	Average weight of a				Average lactation yield lbs.
	Matured bull lbs.	Matured cows lbs.	Bull calf at birth lbs.	Heifer calf at birth	
Ongole	1,400	900	65	60	2,500
Kangayam	1,100	800	46	42	1,500
Hallikar	1,200	800	46	43	1,000
Scindhi	1,000	750	47	42	4,000
GIR	1,200	700	48	43	3,800

The Gir animals are amenable to handling and give a docile appearance. The bullocks are heavy and powerful animals but medium paced. They are extremely used for draught purposes in their home tracts and adjoining States.



The prominent bulging forehead, very large and pendulous ear hanging down with a twist, peculiar downward and backward curve of the horns and varied colour markings are peculiar to the breed. With regard to the colour there is a superstition in the breeding tract that circular or oval and other prominent patches of red, black or even white are due to Lord Krishna having placed his hands on the breed. Out of a total strength of 70 animals in the herd about 60% possess this marking.

However, with the little experience we have had with the breed, colour inheritance is quite interesting. The following observations are made:

1. Bull with red base and white speckled mated with deep red cow throw deep red calves;
2. Bull with dark red base with grey patches all over crossed with red cows gives red calves.
3. Bull with white base and red patches all over crossed with red base cow gives red calves.
4. Bull with white base and grey patches crossed with similar cows with marking has a tendency to throw animals with similar colouring.
5. Bull with white base and white or grey patches mated with cows with similar marking has a tendency to throw animals with similar colouring.

From the point of view of milk it is gratifying to find that in the Gir we have great potentialities as a Dairy animal. The following comparative figures are interesting despite the fact the numbers involved are small.

	Gir	Schindi	Ongole	Remarks
Average Length of lactation ..	277 days	307 days	277 days	At Hosur
Dry period ..	87 "	176 "	147 "	64.3% of Gir
Average milk yield ..	3,800 lbs.	4,000 lbs.	2,500 lbs.	herd remain-
Highest milk yield ..	6,000 "	11,000 "	6,800 "	ed in milk
Dairy average during lactation ..	13.9	12.9	9	throughout 1951-1952

It will be seen that the average milk production is quite high. The dry period being short the breed is ideal from the milk production point of view.



The quality of milk itself is good giving average of 4.5% butter fat. For butter making, however, the flavour of butter is second to the Scindhi but in carotene content from visual observation the depth of colour is similar. From the point of keeping qualities, Gir butter kept the longest compared with Scindhi and Kangayam.

A small herd of Gir has been stationed at the Dt. Livestock Farm, Koila, South Kanara District where there is very high rainfall. Though they appear to be doing well under farm conditions, the bulls are too big for the local cows for extensive use of Gir bulls.

There have been a few calves born to Gir bulls distributed from Hosur Cattle Farm and there are private owned animals in areas bordering Bombay State. So far the progeny seem to indicate that there is great promise for upgrading the scrub cattle in the areas where the animals are medium sized and which are too small for Ongoles and too big for Scindhis.

Thanks are due to Sri K. Kandasamy Raju, Superintendent, Kangayam Cattle Improvement Scheme, Palayakottai at present, Dr. G. Venkatachalam, Superintendent, L. R. S. Hosur Cattle Farm and Dr. P. Viswanathan, Dt. Veterinary Officer (Milk Supply), Madras at present for collecting the data under my guidance.

## *Agricultural folk lore in Malabar*

*By*

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**Introduction:** Folk lore is the expression of accumulated experience in the form of songs, sayings and proverbs. It is current in many countries and in many languages. Often folk lore gives valuable information. Folk lore relating to weather and agricultural practices, obtaining in Malabar is full of interest, with wealth of details. The gist of information from a few selected sayings in the local language is given under different heads to show how they are of interest and guidance to the farmers.

Remarks

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