

cross-over value of 13 %. Rosette-like arrangement of leaves was a simple recessive to the normal. This character was independent of spininess.

Four types of floret colours viz. orange, red, yellow and white have been observed. The genetic inter-relationship of these four colours are explained on a three factor hypothesis.

There is a basic factor 'Y' for colour, due to which the florets are yellow. In the absence of this factor no colour can develop and the florets are white. A supplementary factor 'R' produces the red colour in the presence of 'Y'. A third factor 'O' develops the orange colour in conjunction with 'R' which in turn is dependant on 'Y', the basic colour factor, for its manifestation.

The inheritance of these flower colours were found to be independent of the nature of bracts.

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A Plea for Reviving the Omblachery Breed of Cattle in the Tanjore District

By R. SESHAYYA, M. A., B. L.,
Secretary, Tail-end Association and
Member, District Agricultural Association

Omblachery breed The district of Tanjore, familiarly known as the "granary of the South", is also reputed from time immemorial, for its sturdy cattle, in relation to its agricultural economy. The *ryots* of the district have been depending for long, for their agricultural operations on a well-suited local breed of cattle known as the "Omblachery breed", taking its name from a village called Omblachery, in the Taluk of Tiruturaipundi. The bullock of this breed is a sturdy worker, both at the wheels and at the plough. It is of medium size with a comparatively small head. Its complexion is, generally, bluish grey, and it has a white star on its fore-head. It has shining dark eyes and wears a few thick hairs, on its chin. Its tail is black above the thighs and ends with a lotus like brush of snow-white hair, soft and glossy like silk. Its hoofs are equally white and resemble ivory, in their finish. The pure bred pedigree sire is generally ferocious by nature. Owing to the large demand for this breed of cattle and due to lack of organised effort in breeding in the past decade, its population in the village of Omblachery has slowly dwindled. At present, the pure stock is very rare and outnumbered by those of mixed blood. The pure breed is known throughout the district, as the *jothi madu*.

At present, according to an Omlachery breeder-ryot, there are only about thirty cows, and but five bull calves which may be considered as typical of the breed. Recently, at a meeting of the Taluk Agricultural Association, Tiruturaipundi, the members were reliably informed that the wealthy *mirasdars* of the district were trying to secure, at any cost, the surviving calves for their use and that owing to the owners' unwillingness to part with them, these calves have not changed hands. We were further given to understand that unless early steps were taken by the Government to purchase and maintain them in Government Farms the race of the pure breed would be extinct once for all.

Pasture The village of Omlachery is about seven miles by road from Tiruturaipundi Town, and four miles from the nearest Railway Station of Kariyapatnam, on the Tiruturaipundi—Point Calimere Branch of the S. I. Railway. The village is very near to the sea and lies on the Coromandel Coast and bears a bracing climate. About forty *velis* or about 270 acres of pasture land have been set apart as communal grazing area and the soil is rich in calcium salts so essential for building a race of sturdy bulls suited to heavy ploughing duties. A small river running through the grazing area and falling into the sea takes back large quantities of high tide sea water during summer, and this serves as a good nervine tonic to the entire cattle, that resort to them for their daily wash and for quenching their thirst. The varieties of fodder generally found on the pasture, are, *kai korai*, *neru netti korai*, *manji pillu*, *pillipessara* and other varieties peculiar to coastal areas. The breeding operations are specialised by the *ryots* of the village, while a few of the neighbouring villages having communal rights in the village also join in them. Only two houses have earned a district-wide repute for the quality of the animals bred by them, and their animals are called the *Vannan madu* (the *Dobhi*) and the "Ganesa Iyer *madu*". The cows and the breeding bulls of the village are not dehorned.

According to the information furnished by the *ryots* of the village every cow-calf would become fit for its first service, at the age of four, and later the spacing would extend over two-and-a-half years for every subsequent calving. The cows bear thin wiry frames of strong bones and nerves and their milk-yield is rather scanty, and meagre in quantity. Hence the young ones are allowed to run away with their mothers to the pasture so soon as they could walk distances without detriment to their safety and health. When the calves are but six months old, they are fed in addition to their mother's milk, on a mixture of half-a-Madras measure of water-soaked brown rice, one seer of ground-nut cake, about two seers of bran, mixed with an ounce and a half of common salt. The feeding is done by the women-folk of the house-hold at regular intervals of the day, and the calves run up for their grub at the appointed hour when called on by their pet names.

Marketing methods No organised marketing is done as in fairs and festival days. Calves even at the age of six, seven and eight months, are sold away by needy owners to shrewd middlemen *mirasdars*, who sell them

to others at fancy prices. A full grown bull fetches generally three hundred rupees, while calves do at least sell at a hundred per head. In view of the racy market for it by the richer section of the ryots of the District, the poor live-stock-owner cannot afford to own them long. Hence there is a danger of their extinction altogether, as a breed.

The case for revival of the breed The plea for reviving and increasing the number of the pure blood through Government patronage, gains support from the admissions of the Veterinary and the Agricultural Departments, as to their hardihood and endurance in facing and shouldering tough agricultural duties all the year round, their medium size and wiry frames suited for ploughing operations of clay soil and above all their comparatively low cost of maintenance—all qualities in a bull to be plumped for by the poor live-stock owner *ryot*. It is further significant to be told that because of the lack of patronage from Government quarters, in the way of grant of premium benefits to breeders, the breed has fast been disappearing.

Suggested reforms (1) Reinclusion of the breed in the schedule entitled to premium benefit, by the Veterinary Department. (2) Opening a model farm at Omblachery village, with a view to increasing the pure breed. (3) The immediate purchase of the surviving calves for purposes of the proposed farm. (4) Launching a co-operative enterprise with the subscribed capital of the Mirasdars of the district with objects, such as, (a) the immediate purchase, upkeep and maintenance of all available cows of half and three-fourths blood, (b) the purchase and maintenance of sufficient land for pasture and for growing cattle fodder, (c) assumption of rights and powers of exclusive marketing by or through their agency, (d) the imposition of a ban on the sale of heifer calves for a period of ten years from date of commencement of the said farm, and further ban on all sales of them to butchers. Other measures, incidental to and in furtherance of the objects may also be adopted. But it is urgently in the interests of the live-stock improvement of the District that early steps are taken by the authorities for reviving the reputed "Omblachery breed."

SELECTED ARTICLES

Notes on Erosion

By SIR A. TOTTENHAM, C. I. E.,

Administrator, Pudukottai

Erosion is a world-wide problem. Europe is the continent least affected, though even in parts of Europe, for example the Russian steppes, erosion is a serious problem. In America, Asia and Africa its importance cannot be exaggerated. In regard to Africa, General Smuts has said 'Erosion is the biggest problem confronting this country; bigger than any politics'. The Darbar consider that in our own State anti-erosion work is more important than even Medical Relief or Education. But, until the public have been further educated in the importance of this work, it would be hopeless to give it the priority to which it is entitled in our Budgets.