

Madras Agricultural Journal

(ORGAN OF THE M. A. S. UNION)

Vol. XXIV]

MAY 1936

[No. 5.

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Editorial.

The Viceroy and Livestock Improvement. The Marquess of Linlithgow, the Agricultural Viceroy has within a short time of his arrival in this country, given a practical demonstration of his interest in the development of agriculture. The Royal Commission had recognised that the prosperity of Indian agriculture was closely linked with the improvement of livestock and their report had dealt with a number of suggestions. The Viceroy, the Chairman of that Commission has shown by personal example what actually might be done by private individuals to implement the recommendations of the Commission. As the Viceroy pointed out "the cow and the working bullock have on their patient backs the whole structure of Indian Agriculture" and the best way of helping the cultivator would be to improve the breed of cattle all over the country.

The problem involved in the improvement of cattle in India is twofold, firstly the improvement of the milk yields of individual cows and secondly the production of animals for speed and working capacity. The importance of milk in the diet of the people has come to be recognised all over the world. If even in countries like England, Germany and Italy which are far ahead of India in livestock improvement work, there is found a necessity for a campaign of "drink more milk" how

much more should it be necessary for India might be easily imagined. It has been stated that except in the Punjab the quantity of milk consumed in the rural areas of the provinces in India is seriously inadequate. There is not enough of the 'protective food' milk in the country and health experts have been pointing out that the physical impairment and defects noticeable in school children are in a large measure due to deficient feeding, and want of sufficient milk in the diet, during infancy and early childhood.

It was generally believed in earlier days that a herd of good milkers can be produced only by crossing the indigenous cows with the imported Ayreshires. The opinion has since been revised and it is now recognised that some of the special breeds indigenous to India like the Sahinwal, the Hariana and the Scindhe can be used just like the Ayreshires. These breeds with proper attention to breeding, feeding and management are found to stand comparison with the best breeds of the Western countries. In our own province the introduction of the Scindhes has been of a definite advantage in improving the milk yields of cows.

The question of breeding dual-purpose cattle in India, which in addition to producing working bullocks would also provide good milch animals, has often formed the subject of discussion amongst the Departmental officers. With the experience gained so far the right policy would appear to be to continue to breed for work in the natural grazing areas where the development of dairy industry on modern lines would not be feasible, and to breed for highest milk yields in special herds and in suitable areas with the development of the dairy industry in view. It does not mean however that the two view points are incompatible. The experience with the Scindhe herd in Madras has been that the cows of the breed are definitely better milkers than the local breeds and the bullocks are quite satisfactory except probably in road work where quickness is an important consideration. That the milk yields in the two purely work breeds of South India, the Kan-gayam and the Mysore can be improved by systematic breeding has been demonstrated by the work of the Madras and Mysore Agricultural Departments. The most important point in effecting such improvement is the availability of good pedigree bulls. The ordinary cultivator who requires a general utility animal can get his needs met if pedigreed bulls of definite breeds are placed within his reach. The importance of this question has been recognised by the Viceroy who has presented three pedigree bulls for the improvement of cattle in villages in the vicinity of Delhi. If, as the Viceroy hopes, his example is taken up by men of affluence all over the country there is no doubt that considerable improvement in the livestock of the country will be the result.

In Madras in addition to sale of pedigree bulls from Government farms, private enterprise has been encouraged since some years by the offer of a premium towards the maintenance of breeding bulls. The results of this work have probably not become so apparent yet, as the number of such bulls forms only infinitesimal proportion of the requirements. We are glad that men of position in some of the districts Coimbatore, Tanjore, etc. have come forward to copy the excellent example of the Viceroy. We believe however that the difficulty for a great expansion of this work will be the dearth of a suitable number of bulls of known pedigree. The supply from Government Livestock stations would not be enough and the question of suitably subsidising private enterprise in the direction might have to be considered.

Adulteration of Food Stuffs. The Public Health Department have recently circularised all the local bodies about the importance of the supply of pure food stuffs and drawing their attention to the necessity of extending the provisions of the Madras Prevention of Adulteration Act to all local areas where it is not already in force. This act of 1918 has been until recently in force only in a few of the major municipalities but has since been extended to practically every municipality in Madras. The working of the Act has shown that the adulteration of food stuffs is being carried out on a large scale and statistics, it appears, have shown that in some places over sixty percent of the samples purchased for analysis is adulterated.

The circular gives details of the scope of the Act in respect to some articles of food as milk, butter and ghee, oil, coffee, tea, etc. In spite of the recognition of the importance of milk as a source of food, it is the one substance most commonly adulterated. The addition of water to the milk not only robs children and invalids of an essential nourishment but sometimes the water added carries with it germs of serious diseases. Similarly butter and ghee are often adulterated with other fats both animal and vegetable.

Unlike in the case of milk and butter, the adulteration in vegetable oils such as gingelly, groundnut, coconut is not probably serious as the food value is not apparently affected. The question is simply one of adulterating an expensive sort with a cheaper kind and the adulterant may vary from district to district. The necessary sectional help to analyse samples is proposed to be given to local bodies by Government in return for a small annual contribution. We do hope that every local body, as the custodian of the health of the people in its area will see that the Act is brought into force if it has not been done already.

In addition to the adulteration mentioned above, there is quite a different kind of adulteration often practised in case of food grains.

In rice for instance, old rice and long duration rices fetch a better price but it is becoming usual in trade to adulterate the old with fresh rices and the long duration (*samba*) with the early duration (*kars*). Such adulteration is rather difficult to make out. Unlike in the case of milk, butter and ghee it is rather a difficult proposition to fix standards in the case of food grains but we believe the question is bound to assume importance in course of time.

Rao Bahadur T. S. Venkataraman and the Indian Science Congress. We are glad to learn that Rao Bahadur T. S. Venkataraman, Government Sugarcane Expert has been chosen for the honour of presiding over the 24th session of the Congress in January 1937 at Hyderabad. The Sugarcane work in Coimbatore, though initiated by the late Dr. Barber, has been so ably carried out by T. S. Venkataraman during the last 16 years and more that it has become to be well known all over the sugarcane world. If we wish to give instances where the work of the plant breeder has resulted in enormous benefit to the country and to the cultivators, the sugarcane work at Coimbatore will always stand out as the most striking one.

This is the second time since the Congress was founded that a member of the agricultural service has been chosen as the general president of the Congress, Sir A. Howard having been the President of the Congress in 1926. We offer our very hearty congratulations to Rao Bahadur T. S. Venkataraman on the unique honour bestowed on him.