

## ANIMAL HUSBANDRY WING MEETING OF THE BOARD OF AGRICULTURE AND ANIMAL HUSBANDRY

(*Indian Council of Agricultural Research*)

THE Eighth Animal Husbandry Wing Meeting, which was held at Mysore during the third week of February 1949, was inaugurated by His Highness the Maharaja of Mysore. His Highness emphasised the part played by the cattle in the economic well-being of this country from very ancient times and outlined the problems facing the country to-day.

This meeting which was presided over by Sardar Datar Singh, was of special significance at this juncture when the balance of cattle wealth has become rather unfavourable due to the partition of the country. The Province of Sind is the home of several important milch herds and as things stand to-day their import has almost ceased. The effect of this is already felt, and *per capita* supply of milk which stood at 5.8 oz. before partition has dropped to 5.2 oz. On the other hand the import of milk products like butter, condensed milk, milk powder and cheese is increasing rapidly day by day. The Wing specially considered this loss to the cattle wealth, and far-reaching suggestions were made to conserve the available stock of animals of all-India breeds. It was proposed to establish large cattle farms of such breeds in suitable areas, creating 'key village' areas to help the multiplication of better quality of cattle, and set up a Special Board with necessary statutory and functioning powers to look after the well-being of the cattle wealth. A closely interrelated proposal was also adopted in the form of setting up of "key village" areas in different parts of every Province and State where intensive cattle-breeding work could be carried out. Shortage of proven sires is the biggest obstacle to cattle development. As things stand to-day only one sire is available where 250 are required. To overcome this obstacle the plan envisages that the available pure-bred bulls should be concentrated in selected key villages taking into consideration the nature of feed most suitable for that area, to cross with the available stock in that area. Simultaneously, steps will be taken to enforce by legislation compulsory castration of bulls in these selected areas. The gradual stock produced will be available from the very first generation to grade up the original stock. In the key village area itself the indigenous stock after the fifth

generation will be almost as good as pure-bred stock, and thus work will be gradually extended to other areas, with the result that in course of the time each village could become a breeding centre instead of relying on a few farms as at present. The plan thus aims at improving the existing stock on a much larger scale than is possible just now and may truly be called a milestone in the cattle improvement schemes that have been formulated so far.

The work carried out, with cows and buffaloes, at a few selected centres on artificial insemination has given very promising results. It was therefore proposed that this method should be now utilised widely for improving cattle. In the beginning it will no doubt be necessary to exercise caution and extend the work step by step to avoid disappointments later.

Along with breeding, an equally important problem is to find ways and means of augmenting the present inadequate supply of feeding stuffs for cattle. Shortage of feeding stuffs is one of the biggest obstacles facing the cattle industry, which, if not tackled properly, will upset any plan for cattle improvement and production of more milk. The subject received careful consideration at the meeting and the proposal was made that in view of the fact that at present a large number of cattle live only on the agricultural residues, means should be found to devote a certain portion of the land where irrigation facilities exist and that which the Government is proposing to develop, for growing fodder. Fodder should also be grown by proper rotation on the existing land. Utilisation of leaves and seeds of fruits by processing or otherwise, making use of materials such as entrails, blood, bones, etc., creating fuel and fodder plantations, conserving grass during the monsoon seasons in the form of silage—were some of the methods suggested. It was recommended that the present practice of exporting oil-seeds should be discontinued early and seeds should be crushed in villages so that cakes will be available for use as cattle feed. The practice of extracting oil from oil-cakes by solvent extraction needed to be discouraged as there was no justification for assuming that our cattle get an adequate amount of fat and calories in their diet from other sources. If the use

of oil-cakes for manuring was stopped, wherever possible, that will release considerable quantity of concentrates for cattle. The role of trace-elements in animal nutrition is a subject that has not been investigated in any great detail, as also the toxicity of plants consumed by the animal, during grazing. It was therefore recommended that these two subjects should be investigated in detail.

The meeting also considered the need for the improvement of cattle in hilly areas and decided to appoint a Special Committee to survey the problem, especially in areas where indigenous breeds fail to thrive.

The Wing suggested steps that should be taken to reduce the mortality amongst young calves, which is a constant drain on some of the potentially best cattle. Apart from the various diseases which are responsible for this heavy loss, it was emphasised that the problem was largely an economic one, and unless breeding of live stock was made profitable, other remedial measures cannot be expected to bring the desired changes in the existing practices. It was therefore recommended that where possible calf farms should be started where calves

may be reared and looked after properly till maturity. Different practices for rearing of calves are followed in different parts of the country. It was therefore decided to survey these methods so that when the experience of all the breeders is pooled together it may be possible to evolve a cheap method for raising calves.

It was recommended that in view of the growing number of centres where various veterinary biological products are manufactured, and also because of the large import of these products, it was necessary to set up an organisation with statutory powers to lay down standards and check the quality of these products. Such an organisation is overdue and it is hoped that early action will be taken on the lines of the existing Drug Acts from which veterinary products are excluded now.

The question of veterinary education was also discussed. It was emphasised that the standard of training should not only be uniform, but as high as possible. The setting up of an Indian Veterinary Council was recommended to safeguard the interests and integrity of the veterinary profession.

### IMPROVEMENT IN METHODS OF DATING\*

**I**N the field of architectural history, the Method of Seriation has uniformly been followed for purposes of dating. With the help of buildings, of which the dates are known from independent evidence, an evolutionary series is first built up; and then temples of which the dates are not known, are assigned dates according to their nearness to one or other of the landmarks in the scale. The assumption in Indian Architecture has been that the whole of India can be treated as one unit in evolution, and that evolution itself has been unilateral. Different workers like Furgusson or Rakhaldas Banerji have only differed from one another in their choice of elements used for building up the scale of reference; but the fundamental assumptions have been uniform.

Professor Bose suggests that this method of treating the whole of India as one evolutionary unit, and the dependence on

unilinear evolutionism is not justified. There is evidence to show that in different regions, temples have followed slightly different courses of evolution. Moreover, the structural elements of temples have also changed, not uniformly, but at varying rates.

Professor Bose has tried to apply the Distribution Method for finding the relative age of those elements. He proposes that, in each region of India, the dated temples should be taken up, subjected to a uniform scheme of analysis, and an independent scale of evolution built up with their help. When this work has been accomplished in different provinces of India, the findings arrived at by a reliance upon the Distribution Method should be compared with the above result. Only then shall we be in a position to assess the value of the latter method, as well as check the results arrived at by previous workers in the field, who relied on a belief in the uniformity of evolution.

Research workers in different areas can thus be of help to one another in bringing more precision into methods of dating.

\* Summary of the Presidential Address delivered by Professor Nirmal Kumar Bose, to the section of Anthropology and Archaeology during the 36th Session of the Indian Science Congress held at Allahabad, January 1949.