

The objects of this experiment, which is of a purely practical nature, are threefold; firstly, to ascertain the effect of open air treatment upon the diseased cattle themselves; secondly, to ascertain to what extent healthy cattle, kept in contact with diseased cattle under open air-conditions, are subject to infection; thirdly, to ascertain what percentage of healthy calves it is possible to rear from diseased cows, kept without any precautions under open air conditions.

The experiment is not yet concluded, nor have its results been properly tabulated for publication. I may say, however, that of the twenty-eight reactors, one only has broken down from generalized tuberculosis during the three years which have elapsed since the experiment began. One other has been killed owing to tuberculosis of the udder. Of the healthy animals kept in contact with them, feeding from the same racks, grazing over the same ground, drinking from the same pool, not a single one has become affected and this in spite of the fact that from time to time, animals suffering from acute generalized tuberculosis have been introduced to the herd and allowed to mix freely with its original members.

The results in the rearing of healthy calves, however, remind one somewhat of the Irishman's pigs, which, you will recollect, when killed, did not weigh as much as he expected and he never thought they would.

Of the calves dropped and reared by reacting cows, seventy-five per cent (75 per cent) have so far entirely failed to react, while twenty-five per cent (25 per cent) have reacted at various ages ranging from four months to one year. One calf died at six weeks old from generalized tuberculosis, this case being probably congenital.

The results of the various tests of the original reactors made at intervals of about six months and in the last case after a lapse of twelve months, are exceedingly interesting and will, when published, together with the *post mortem* notes, merit the careful perusal of those who believe in the absolute reliability of tuberculin as a diagnostic agent.

I might add that the cattle have had no shelter but open sheds and have, with the exception of a few of the weaker individuals, been fed nothing but hay for the three winters during which they have been under observation.

It should be mentioned that through an error in judgment on the part of an over-zealous herdsman, during the first winter, our calves began to arrive in December of 1906, the first being dropped when the thermometer was 29° below zero, the others following at intervals, sometimes very short, until the middle of March, 1907, and that in spite of this both dams and progeny thrive well in the open air.

The results are very interesting in view of the present tendency to consider the digestive tract the most frequent and certain channel of infection. While the experiment above outlined assists in proving that young animals can be and are most frequently infected through the digestive system, it also, to my mind, shows that, in the case of adults, infection through the air passages plays an important part.

I feel satisfied, and I think all practical men will agree, that had the healthy cattle in this experiment been kept under ordinary stable conditions with their diseased companions, they would not have escaped as they have done.

The highest medical authorities are nowadays advising, and with the very best possible results, our modern hot-house humanity, to get 'closer to nature' in every possible way. The advantages of adopting a similar policy in the handling and housing of domestic animals are too apparent to admit of discussion. Nature has furnished our animal friends with every conceivable requisite for protection against ordinary climatic conditions and most of the diseases and disabilities to which they are subject have been caused by and owe their continuance to the irrational artificial conditions imposed upon them by well-meaning but ignorant, or rather unthinking owners and attendants.

I am here, however, to learn and not to teach. The problem of the Control of Bovine Tuberculosis is undoubtedly the most serious confronting the veterinary sanitarian of to-day, and if the labours of this section of the International Congress rest in its solution, I for one will be forever grateful.