Europeans and Natives

... 609,500.
... 98,869.
... 8,948.
... 2,157.

FOR DISCUSSION: CONFEERENCE.

irrigent South African imported from Madagas
... c. because of a previous subcutaneous
... of temperature-takings.
... died with by exporters
... such as beef, pork and
... wool, mohair, ostrich.
... branding of cattle and
... introduction of South
... into Madagascar of
... various species, more
... Abyssinia, the Red
... technical vaccination of
... different varieties of
... treatment to be
... the bovine, ovine and
... vaccination against
... ulcerative lymphan-

NATIVES OF AFRICA.

atives as veterinarians,
... on operators, cattle
...actical instruction to
... cattle-breeding natives
... and for fighting epi-
... of coercion.

Paper No. 40.

VETERINARY EDUCATION OF NATIVES.

By Lt.-Col. A. G. Doherty, M.C., M.R.C.V.S., late Chief
Veterinary Officer, Department of Agriculture, Kenya.

The value of scientific work in connection with stock and stock diseases in Eastern Africa is governed by the ability of the Government to apply the knowledge gained.

The application in respect of European-owned stock presents little or no difficulty; the settled areas of Kenya Colony are fast becoming models of improved methods based on our knowledge of local conditions as taught by the veterinary staff.

The case of the native is unfortunately, but very naturally, a most difficult one.

The conservation of our primitive pastoral peoples and their blind faith in the cattle husbandry of their forefathers, which enabled them to inherit what in their eyes are undoubtedly fine flocks and herds, can easily be understood by any student of the African native.

Government, through the officers of the Veterinary Department, assisted by Administrative officers, for years vainly endeavoured to convince native stockowners in their reserves that modern methods yield better results than their own.

It was not until recently that any response was given to our endeavours, and this response was only obtainable when circumstances permitted of basing educational measures on European-owned stock in the settled areas.

The awakening of the African to better methods of cattle husbandry has been brought about as follows:—

Our pastoral tribes have inherited the cattle husbandry they practise, the keystone of which is immunity to disease naturally acquired. This naturally acquired immunity costs them approximately 60 per cent. of their annual increase, but the native understands it. Recovered animals possess a life immunity. The veterinary service, after many years’ experience in a method of conferring life immunity to rinderpest by inoculation of European-owned stock, can do so with a mortality which under present methods approximates 5 per cent. Attempts to demonstrate this to the native in his reserve always met with failure.

A system of education has been introduced whereby natives are taught the technique of this operation, using European-owned stock, at veterinary stations which deal with trade stock, and on farms where regular immunization is practised, as the necessary material for teaching purposes.

The result has been more than satisfactory. The native, who up to now has resisted strongly, not to say fiercely, any attempt on the part of the veterinary staff to interfere with his stock, has already presented 180,000 head for this treatment; some of the stations have had a waiting list, and actual competition has been experienced for priority of attention.

The financial side is not so important, but it is interesting to note that all these inoculations were carried out on payment of the prescribed fees by the native owners, and inoculation revenue advanced to £24,600 in 1925 from an estimate of £6,350 in 1924.
It is quite evident, after twenty years’ experience of natives and their stock in East Africa, that the only way to obtain adequate return for the money spent in veterinary research is by applying the best methods of education in live stock matters to our primitive native stock owner and actual demonstration of animal husbandry, which gives better results than his own, is evidently the way to achieve this result.

A Central Native Training Centre serves as the educational centre for native live stock education in the Colony, and is, I hope, only the beginning of an organization which will develop into a Native Veterinary College on the lines of the Lahore Veterinary College in the Punjab which trains the Indian native in veterinary matters and turns out the Indian veterinary assistants employed in Eastern Africa.

Such an institution is strongly indicated in Kenya to serve Eastern Africa. It would embrace every side of animal husbandry suitable for native requirements, and would maintain small herds of native and improved stock which would not only afford the necessary material for teaching modern methods of management, such as proper milking and calf rearing, but would also be able to obtain results valuable from a nutrition and breeding research point of view.

1. The readiness of the African to absorb improved methods when suitably demonstrated.

2. The material for demonstration and advantages of training pupils in an atmosphere of improved stock and stock management in the settled areas where they could get experience in preventive inoculations.

3. And, finally, the enormously increased return from expenditure on research by allowing of the wider application of results, all support this view.

An institute such as I have in view would be supplementary to local education by districts. Selected pupils would be received for secondary education and graduation. The live stock industry by having a supply of men trained in this way to work amongst native-owned live stock of Eastern Africa under European officers cannot, in my opinion, be overestimated.

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**Paper No. 41.**

**THE SPLEEN IN RUMINANTS AND EQUINES.**

**MAINLY A REVIEW OF THE SEQUELAE OF SPLENECTOMY.**

By G. de Kock, M.R.C.V.S., Dr. Med. Vet., Sub-Director of Veterinary Services, Department of Agriculture, Union of South Africa.

**The** object of this paper is to review, briefly, the various observations made at Onderstepoort in the case of domesticated animals on which splenectomy had been performed. The literature on splenectomy, especially regarding the lower animals, has been reviewed by De Kock and Quinlan (1927), De Kock (1928), De Kock (1929 A), De Kock (1929 B), and only some of the salient points will be referred to here. Splenectomy has been very successfully performed on man, dog, the various laboratory animals (rabbits, equines, bovines and ovinas). The list of the various methods of operation. It is evident that the results to be expected from the fact as to whether the animal carries blood parasites. De Kock and Quinlan of ovinae anaplasmasis in South Africa it was not identified for a long time. Carriers of ovinae anaplasmasis were recognized with acute anaplasmasis followed, which was fatal. In the same way, splenectomy of *Uttallia equi* was followed by fatal bovine, relapses of anaplasmasis plasmoditas and genderitis, followed.

According to Ziemann (1924), parasite show malaria relapses, in some instances with splenomegaly in apes, Gonder observed that *Plasmodium kochi* usually disappeared whereas after splenectomy the parasites, shrank in large numbers. Landau (1925) showed the spleen in rats was followed by a substantial increase in the corpuscles of splenectomized rats, affected by small bacilliiform bodies resembling *R. conoides.* Regendanz and Kikut (1925) in marsupial rats was followed by the appearance of *Piroplasma canis* and *Piroplasma* *bovis,* and many other *Plasmodium* species. The parasitic organisms showed fatal relapses in eight days, it would, therefore, seem that the immunity of some pathological conditions on the course of immunity of some pathological conditions.

In order to review the most important in Onderstepoort, it is advisable to consider under the following headings:

(a) Animals not the carriers of parasites, e.g. anaplasmas, piroplasmas.

(b) Animals which are carriers of parasites.

(1) Splenectomy in non-carriers of parasites, bovine, and ovine. In a normal horse, a leucocyteosis, at times reaching 50,000, it was a neutrophilia, and, in the case of *Plasmodium* *tropicae* there was a slow decrease in the red cells, e.g. from 11 million to 6 million. This has been due to the fact that the animal was in a stable condition. Unfortunately, the opportunity of studying the results of splenectomy in a horse with a temporary polyglobulemia was missed. The sheep died as a result of the operation 18 hours afterwards, whereas one survived for a short time. Post-mortem these cases revealed no signs of operation complicated by suppurative...