



PRESERVING SOUTH AFRICA'S VETERINARY HISTORY

A COLLABORATIVE APPROACH



Authors

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Affiliation

- David from the library, Onderstepoort Veterinary Research Campus (hereafter called "ARC-OVR")
- The other co-authors are from Jotello F Soga Library, Faculty of Veterinary Science, Onderstepoort (hereafter called "Jotello F Soga Library")





Introduction

- History of veterinary science and education is embedded within the colonial history of South Africa
- Observations on unknown animal diseases occurred during this historical period
- Documented into written descriptions like journal articles and theses and captured as photos and glass negatives.





Introduction (cont.)

 Archival material which is difficult to locate, is crucial to complete the picture.

Cattle suffering from trypanosomosis in Uganda



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Paper No. 26.

THE SCAB PROBLEM IN THE UNION.

By P. R. VILJOEN, M.R.C.V.S., Dr.Med.Vet., Deputy-Director of Veterinary Services and Animal Industry, Department of Agriculture, Union of South Africa.

1. Introduction.

Scab is one of the oldest diseases known in South Africa and has perhaps been longest under State control. It was heard of first in 1693, when the then Governor of the Cape, Simon v. d. Stel, issued a proclamation, containing certain measures that had to be taken in connection with outbreaks of the disease.

From the earliest days of settlement in this country and throughout the history of the four provinces now constituting the Union, seab loomed very largely as one of the most important and difficult disease problems that had to be faced.

Needless to say, a tremendous amount of legislation in connection with the control of this disease has seen the light of day, and, what is more important, a great deal of money (amounting probably to several million sterling) has been spent on its eradication. That this vast expenditure that the property of the second of the several million sterling) has been spent on its eradication. That this vast expenditure that the property of the second of the several million sterling has been spent on its eradication. The thin control the property of the second of t

The economic losses resulting from scab invasion are, therefore, of such great importance that the State must take every precaution against the introduction of the disease in sheep areas. In order to do this effectively, all sources of infection must be traced and destroyed as soon as possible.

What is of particular interest to us Yeterinarians is that in the Union, up to 1924, all scale eradicative measures were in the hands of laymen. It is not my intention to reflect in any way on previous administrations; I have no doubt that everybody concerned with the work did his utmost to achieve success, but it stands to reason that without a thorough scientific knowledge of the disease, the persons concerned must have worked under a severe handleap.

To give only a brief illustration of what transpired, I may point to the fact that goat scab (sarcoptic infection) was being dealt with under the Scab Regulations, while sarcoptic infection of other domestic animals did not receive any attention.

In the Union all three forms of sheep and goat scab, namely, surcoptic, psoroptic and symbiotic, are dealt with under the Stock Diseases Act and come under the definition of "Scab."

2. Organization

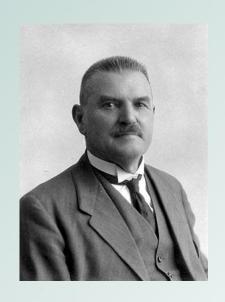
Scab now falls under the control of this Division, and for its eradication the whole Veterinary organization of the Union is available. For purposes of Veterinary administration the whole Union is

Paper from the Proceedings of the 1929 Pan African Veterinary Conference, 1929 Pretoria, South Africa





- Theiler and the Rinderpest epidemic, 1896
- The first South African to become a qualified veterinarian, was a Xhosa - Jotello Festiri Soga

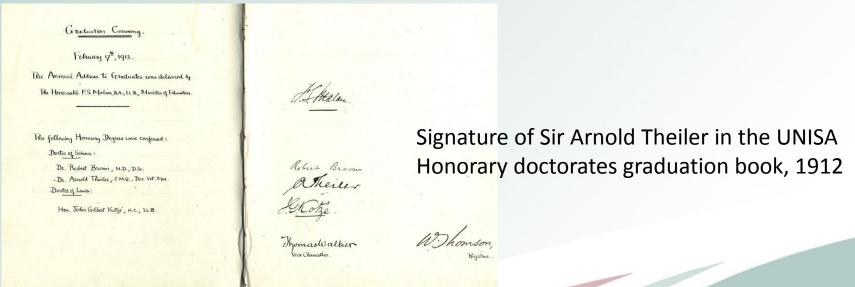








- Research institute established in 1908
- Training at the institute as from 1920 under supervision of Transvaal University College
- Degrees awarded by University of South Africa





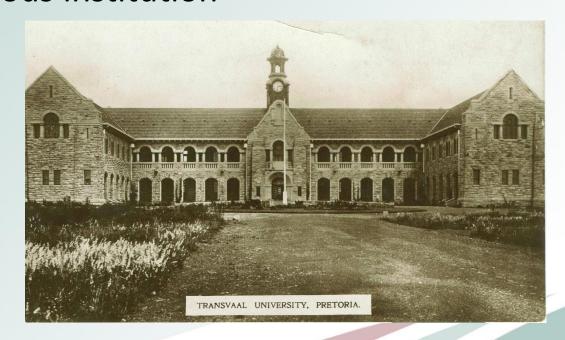


- Research Institute (with various names over the years) formed part of the state Department of Agriculture (with various names as well)
- Research Institute became part of the Agricultural Research Council in 1992
- Minus the vaccine factory, that became a state-owned company called Onderstepoort Biological Products in 2000





- Training took place as a joint venture with the University of Pretoria until separation in 1973
- Degrees were awarded by University of Pretoria, now an autonomous institution







Safeguarding

- Historical items, documents and memorabilia were scattered
- In 2007 the Jotello F Soga Library realised the importance of safeguarding the veterinary history of South Africa



Donation from Prof Anna Verster containing photos and other memorabilia of Sir Arnold Theiler to the Jotello F Soga library

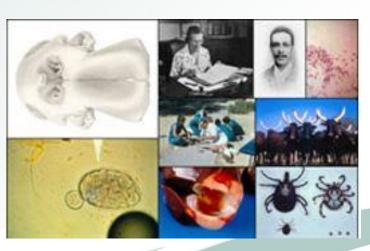




Safeguarding

- Material to be digitised and preserved in the UPSpace repository as a collection, named the South African National Veterinary Repository (SANVR) https://repository.up.ac.za/handle/2263/3809
- Memorandum of Agreement (MOA) closed between ARC-OVR and the University of Pretoria









Safeguarding

 The Veterinary History Committee of the South African Veterinary Association (SAVA), now known as the Veterinary History Society also contributed material







Resources preserved in UPSpace

- One of the criteria to build a veterinary historical collection is to carefully select and evaluate the resources to be digitised and uploaded
- 1929 Pan-African Veterinary Conference

Paper No. 24.

BOTULISM IN THE DOMESTICATED ANIMALS IN SOUTH AFRICA.

By E. M. Robinson, M.R.C.V.S., Dr.Med.Vet., Research Officer, Department of Agriculture, Union of South Africa.

Paper No. 28.

POISONOUS PLANTS IN SOUTH AFRICA HITHERTO UNKNOWN.

By D. G. Steyn, B.Sc., Dr.Med.Vet., Veterinary Research Officer, Department of Agriculture, Union of South Africa. Paper No. 33.

RABIES IN SOUTH AFRICA.

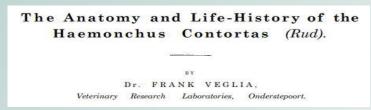
By P. J. Du Torr, B.A., Ph.D., Dr.Med.Vet., Director of Veterinary Services and Animal Industry, Department of Agriculture, Union of South Africa.



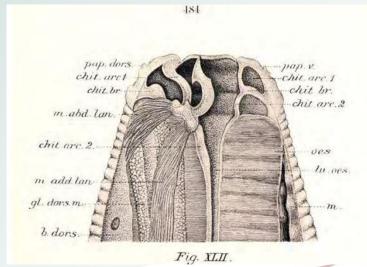


Resources cont. – Frank Veglia

 Frank Veglia's landmark article "The anatomy and life-history of Haemonchus contortus (Rud.)"



this Bulletin. The work represents probably one of the best studies in veterinary helminthology that has yet been published. A very large part of the work is devoted to anatomical and morphological details, but the chapters dealing with the influence of the environment on the eggs and larvae, migration of the mature larvae, and the parasitic life of the larva and adult worm provide very instructive reading.







Resources cont. — Sir Arnold Theiler's last lecture

Sir Arnold Theiler's last lecture

This is probably the last lecture Sir Arnold Theiler gave to BVSc students at Onderstepoort, 1936. He died in London soon afterwards. The lecture was made available by Dr M. de Lange, who graduated in 1936. (Full text available in **UPSpace**)

OUT OF THE PAST

RICKETS AND OTHER DEFICIENCY DISEASES OF THE OSSEOUS SYSTEM

("Last Lecture given by Sir Arnold Theiler to B V Sc. V Students, Onderstepoort, 1936

The causes of these diseases may be divided into 3 main groups, namely

In this case it is mainly a protein deficiency or even a In this case it is mainly a protein deficiency or even an amino acid deficiency e.g., the protein of maize is defi-cient in certain amino acids. In plain words one may say that if the osteoblasts are not "fed" properly they cannot produce bone. Instances of this may be seen in Or Quin's physiological experiments in connection with the Alimentary System where improper or insuf-

Again, in Mönnig's Oesophagostomum ex Again, in anoming a Oesophagoscomum experiments the same conditions may be seen with heavy worm infestations — in this case probably due to toxin formation, but not impossibly due to digestive and absorptive derangement. Probably in practice the

1. Phosphorus deficiency

Definition:- A superabundance of osteoid tissue is formed which transgresses the normal limits due to a phosphorus deficiency or perhaps an excess of Ca and normal amount of phosphorus (experiments still in progress), in vider, perhaps 1 cm, not due to increased for

Produced in pigs experimentally: Clinically the animal's growth is greatly retarded, the joints are abnormal in shape and size and the animal has pain due to the fact that the newly formed osteoid matrix does not ossify and consequently the nerves are not protected against

Osteomalacia this is the so-called rickets in adult animals especially cattle. The cause, pathology, etc. is exactly the same as in young animals except that it occurs after the epiphyseal line has closed. It is the so-called

Africa - "True Stywesiekte" (Crotalariosis of cattle is not true stywesiekte—a laminitis) is a phosphorus deficiency in old animals. The condition may be cured by giving the animals phosphorus in the form of bone meal—that is

In pigs — feed a normal ration with correct Cs P ratio (1:1) - cure. Vitamin deficiency almost impossible to produce in South Africa due to its abundance of sunlight, except under extremely artificial conditions, where all the food is boiled etc. In horses only one case of rickets is on record in

a foal. It cannot be produced in the horse, or perhaps only with extreme difficulty.

NB A Ca deficiency does not produce rickets 2 Calcium Deficiency

tissue i.e. the bone deposited is reabsorbed leaving a porous, easily fractured bone, with an absence of

In pigs in this condition one sees a paralysis of th

If an excess of P over Ca is fed a condition of Osteodystrophia fibrosa develops, Definition: Excessive breakdown of bone replaced by fibrous bone tissue

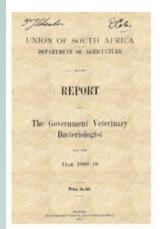
and towns (Johannesburg) due to the fact that the animals were fed exclusively on a bran ration which is

only seen in those parts where continuous and great mechanical stress (or trauma) is applied such as in the jaw bones. These swell up to a great extent, giving the face a puffed appearance, due to excessive forma-tion of fibrous bone, to combat the continual strain weaker until they are unable to stand any longer and weaker until they are unable to stand any longer and have to be placed in slings until death supervenes. The condition responds readily to feeding with a nor-mal Ca:P ratio and complete recovery takes place. Whether the awelling of the jaw bones will disappear





Resources cont. – OJVR













- Reports of the Government Veterinary Bacteriologist of the Transvaal
- Reports of the Director of Veterinary Research
- Reports of the Director of Veterinary Education and Research
- Onderstepoort Journal of Veterinary Science and Animal Industry
- Onderstepoort Journal of Veterinary Research





Resources cont. - Biographies

- Biographies compiled by the Veterinary History Society
- Example: Dr John Isaac Quinn



QUIN, JOHN ISAAC: (February 15, 1900, Klerksdorp, South Africa – March 20, 1950, on train between Nelspruit and Pretoria, South Africa). Veterinaria; Physiologist. Son of John George and Emmerentia (neé Botha) Quin. Married Petronella Schutstal-van Woudenberg, 4 December 1928.

EDUCATION: Transvaal University College (then under the aegis of University of South Africa). 1924 (member of 1 dess of students to graduate from newly created veterinary faculty at Onderstepoort): BVSc (with honours); University of South Africa, 1918: DVSc(cum lande).

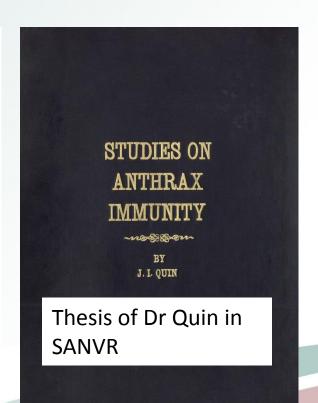
CAREER: 1925 – 1936, research veterinary officer in Section of Bacteriology at Veterinary Research Institute, Onderstepoort, 1937 – 1948, senior veterinary research officer in Section of Physiology at the Veterinary Research Institute, Onderstepoort; 1934 – 1950, Professor of Physiology at Onderstepoort Faculty of Veterinary Science; December 1949 – 20 March 1950 (the died in office), Director of Veterinary Services and Dean of Veterinary Faculty at Onderstepoort.

CONTRIBUTIONS: Did pioneering research work on immunity against anthrax; sudied physiological aspects of digestive disturbances of cattle under South African conditions; researched photosensitivity due to plant poisoning in sheep and goats and porphyria in cattle; studied formation and role of sex hormones in cattle. Will probably best be remembered for determining with Rimington that the photodynamic agent in hepatogenous photosensitizations (such as geeldikkop and Lantana poisoning) was phylloerythrin; a degradation product of chlorophyl. Noted for his concise and lucid style, his articles have served as examples for countless young researchers of how publications should be written.

HOMAGES AND DISTINCTIONS: Awarded the Senior Captain Scott Medal of South African Biological Society in 1944; member of South African Association for the Advancement of Science. Well regarded internationally: the distinguished New Zealand researcher, NT Clare, in 1951 dedicated his classic review "Photosenstiration in Diseases in Domestic Animals!" to the memory of Quin, 'pre-eminent' in the field, a gracious acknowledgement of a colleague, today rarely seen in science.

Biography of Dr Quin in SANVR

phylloerythrin in the digestive tracts of various domestic animals. Onderstepoort Journal of Veterinary Science and Animal Industry (1935) 4, 461-471.

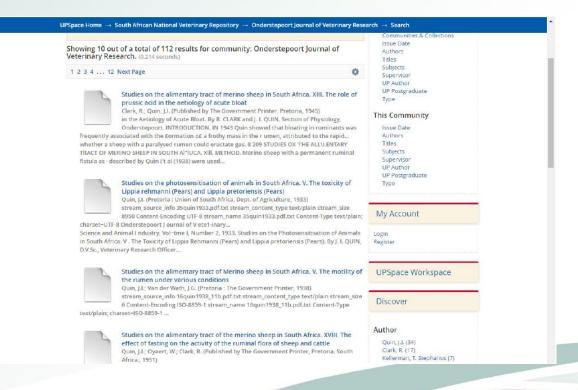






Resources cont. – Biographies 2

 He can be linked to his full text thesis "Studies on anthrax immunity" available (with permission from UNISA) in the "Early Veterinary Theses - University of South Africa 1920-1950" collection. A photo of Dr Quin is available in the "Historic Glass Plate Collection" of the ARC-OVR while his journal articles can be retrieved in full text from the Onderstepoort Journal of Veterinary Science and Animal Industry in the SANVR collection.







Glass-plate collection

- Glass-plate negative collection in the possession of the ARC-OVR.
- Currently it is in the process of being assigned metadata and uploaded to UPSpace.
- Subjects covered in this collection are the early developments at Onderstepoort, students and staff, other research stations like Allerton and Kaalplaas and buildings





Images from the glass-plate collection

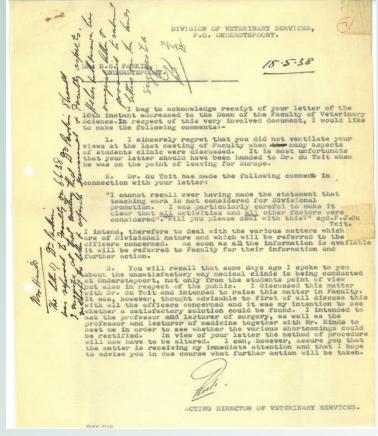






Future possibilities

Administrative archive, 1919-1962





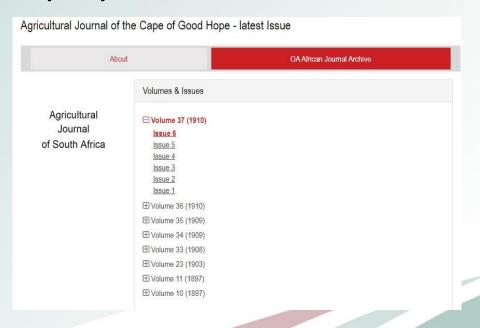
Dr. Bately Scott Parkin (1892/07/16-1950/07/16)





Future possibilities 2

- Valuable old books, out of copyright, in the ARC-OVR library
- Agricultural Journal of the Cape of Good Hope contains the earliest veterinary articles produced on South African soil
- Digitised partially by Sabinet







Conclusion

- Veterinary librarians are frequently faced with requests to supply historical information for various commemorations, presentations and writings
- As librarians and archivists with experience in working with software development, data practices and scholarly communication, we have taken up the responsibility of preserving the veterinary history of South Africa. When working in collaboration with other institutions and individuals we can avoid losing our wealth of historical veterinary information.





Thank you

Questions?



