



ANNUAL ADMINISTRATION REPORT
OF THE
MADRAS CIVIL VETERINARY
DEPARTMENT

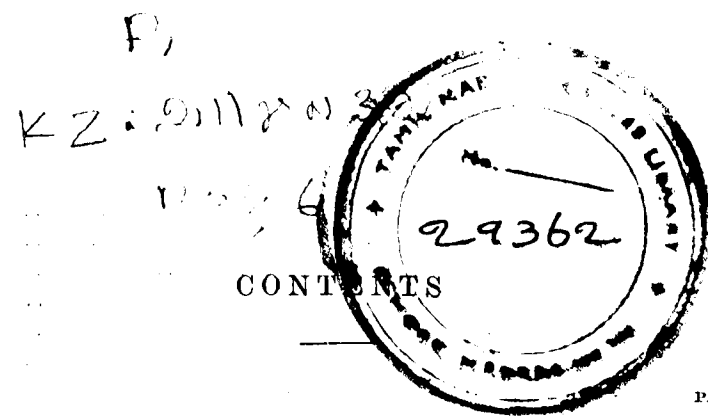
FOR THE YEAR

1932-33

MADRAS
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1933



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ANNUAL ADMINISTRATION REPORT OF THE MADRAS CIVIL VETERINARY DEPARTMENT FOR THE YEAR 1932-33.

I.—STAFF.

(a) Administration.

1. Mr. P. T. Saunders continued to be in charge of the department throughout the year under report. He was on tour for 81 days as against 74 days in the previous year and in the course of his tours, he inspected the work of veterinary institutions and Touring Veterinary Assistant Surgeons. He also inspected the forest livestock at Begur and Koraput and the goat virus inoculation camp at Pullalur during the year besides inspecting, as usual, the Madras Veterinary College, the Serum Institute and all the District Veterinary offices. He attended the Conference of Collectors at Ootacamund in May 1932, the meetings of the Advisory Board of the Imperial Council of Agricultural Research in July 1932 and February 1933 and the first meeting of the Animal Husbandry Wing of the Board of Agriculture and Animal Husbandry held at Delhi in February 1933.

(b) Indian Veterinary Service.

2. The number of Indian Veterinary Service Officers in the department during the year remained at three, viz., Messrs. P. T. Saunders, T. J. Hurley and V. Krishnamurti Ayyar. Mr. P. T. Saunders continued as Director of Veterinary Services, while I and Mr. V. Krishnamurti Ayyar held the posts of Principal, Madras Veterinary College and Professor of Pathology and Bacteriology, Madras Veterinary College, respectively, during the year.

(c) Madras Veterinary Service.

3. Mr. H. C. Sampath Ayyangar held charge of the Vellore Circle throughout the year under report except for a short period from 14th July 1932 to 5th August 1932 when he was on leave. Mr. R. Narasinga Rao continued as District Veterinary Officer, Madras, during the year. Mr. K. Kailasam Ayyar held the post of Lecturer in Animal Hygiene, Resident Veterinary Officer and Personal Assistant to the Principal, Madras Veterinary College, till 7th April 1932 when he was transferred as Superintendent of the Serum Institute which post he continued to hold till the end of the year. Mr. A. J. Wilson continued to be in charge of the Coimbatore Circle throughout the year. Mr. M. R. V. Panikkar

who was holding the post of Lecturer in Pharmacology during the beginning of the year was appointed as Lecturer in Animal Hygiene, Resident Veterinary Officer and Personal Assistant to the Principal, Madras Veterinary College, from 7th April 1932 consequent on the posting of Mr. K. Kailasam Ayyar as Superintendent, Serum Institute, and he continued in this appointment till the end of the year. He was on leave for fifteen days from 27th October 1932. Mr. M. Anant Narayan Rao held the post of Lecturer in Parasitology, Madras Veterinary College, throughout the year. Mr. A. Ramachandra Ayyar was in charge of the Madanapalle Circle from the beginning of the year till 2nd January 1933 when he went on four months' leave. Mr. K. S. Nayar continued as Lecturer in Surgery, Madras Veterinary College, throughout the year. Mr. W. J. D'Costa who was transferred from the Vellore Circle to the Trichinopoly Circle during the end of last year continued to hold charge of the latter circle till the end of the year. Mr. A. K. Mitra was holding the post of District Veterinary Officer, Vizagapatam, from the beginning of the year to 13th July 1932, and was then posted as Lecturer in Pharmacology in the Madras Veterinary College. He held the latter post till 31st January 1933 when he went on two months' leave. Messrs. C. Venkataratnam Chetti and G. A. Ajwani held charge of the Bezwada and Rajahmundry Circles, respectively, throughout the year, while Mr. C. Suryanarayanamurti Pantulu continued to hold the post of Special Rinderpest Officer to the end of the year. Mr. T. S. Alagappa Pillai was District Veterinary Officer, Madura, throughout the year and Mr. A. L. N. Somayajulu Pantulu continued as District Veterinary Officer, Nellore, from the beginning of the year till 9th July 1932 when he went on medical leave for one year.

Mr. K. S. Natesa Ayyar, Madras Veterinary Service Officer on probation, held charge of the Calicut Circle as Acting District Veterinary Officer throughout the year and Mr. K. Seshagiri Rao, another probationer in the Madras Veterinary Service, acted as District Veterinary Officer, Bellary, during the whole of the year. Mr. H. N. Chelva Ayyangar, Lecturer in Anatomy on probation, Madras Veterinary College, held the post to the end of the year. Mr. M. A. Rangaswami Ayyar, Veterinary Assistant Surgeon, on return from leave after undergoing post-graduate training in the United Kingdom, was selected for admission to the Madras Veterinary Service and appointed as acting Lecturer in Physiology at the Madras Veterinary College, from 2nd July 1932 and he continued in this appointment till the end of the year. Mr. A. Castelino who was appointed to act as District Veterinary Officer, took charge of the Vizagapatam Circle on 14th July 1932 and continued in charge of it throughout the year. Mr. N. Muniappa Pillai was appointed to act as District Veterinary Officer, Nellore, on 14th July 1932 and after remaining in charge of the circle till 20th January 1933, he went on medical leave. Mr. M. Sundaranathan was posted to act as Lecturer in Pharmacology in the

Madras Veterinary College, from 1st February 1933 and he continued in the appointment till the end of the year. Messrs. M. Ponnayya and S. S. Thitharappa Mudaliyar were also selected for admission to the Madras Veterinary Service during the year and they held charge of the Madanapalle and the Nellore Circles as acting District Veterinary Officers from 3rd January 1933 and 3rd March 1933, respectively, to the end of the year.

The number of days spent on tour by each of the District Veterinary Officers during the year is given below:—

District Veterinary Officers.		Number of days spent on tour.
(1)	District Veterinary Officer, Vizagapatam ...	137
(2)	„ „ Rajahmundry ...	174
(3)	„ „ Bezwada ...	145
(4)	„ „ Nellore ...	130
(5)	„ „ Bellary ...	180
(6)	„ „ Madanapalle ...	161
(7)	„ „ Vellore ...	145
(8)	„ „ Coimbatore ...	171
(9)	„ „ Calicut ...	149
(10)	„ „ Madura ...	204
(11)	„ „ Trichinopoly ...	141
(12)	„ „ Madras ...	212

(d) *Madras Veterinary Subordinate Service.*

4. The strength of the cadre of Veterinary Assistant Surgeons on 31st March 1933 was 267 including the seven temporary posts of Veterinary Assistant Surgeons sanctioned for the Serum Institute and the one post of Assistant to the Lecturer in Animal Hygiene sanctioned for the Agricultural College, Coimbatore, as against 264 at the end of March 1932. This number excludes the following reductions in the cadre which were effected during the year:—

(i)	Abolition of two posts of Veterinary Assistant Surgeons in the Madras Veterinary College Laboratory consequent on the transfer of the Virus section to the Serum Institute ...	2
(ii)	Abolition of the post of Veterinary Assistant Surgeon attached to the Livestock Research station, Chintaldevi, which has been closed ...	1
(iii)	Consequential reduction of leave reserve ...	1
Total ...		4

The 267 posts were distributed as shown below during the year under report:—

(1) Itinerating	92 *
(2) In charge of Veterinary institutions ..	5 †
	110 *
	3 †
(3) Leave reserve	31
(4) Attached to Head office	1
(5) Employed in the Madras Veterinary College.	11
(6) Do. Serum Institute ..	7
(7) Do. Agricultural Department ..	3
(8) Do. Forest Department ..	3
(9) Do. Ootacamund Municipality..	1
Total ..	267

II.—EDUCATION—MADRAS VETERINARY COLLEGE.

(i) Instruction.

(a) Staff.

5. The following officers were on the gazetted staff of the College on 31st March 1933:—

- (1) Mr. T. J. Hurley, Principal and Professor of Medicine.
- (2) „ V. Krishnamurti Ayyar, Professor of Pathology and Bacteriology.
- (3) „ M. R. V. Panikkar, Lecturer in Hygiene, Resident Veterinary Officer and Personal Assistant to Principal.
- (4) „ M. Anant Narayan Rao, Lecturer in Parasitology.
- (5) „ K. S. Nair, Lecturer in Surgery.
- (6) „ H. N. Chelva Ayyangar, Lecturer in Anatomy.
- (7) „ M. A. Rangaswami Ayyar, Lecturer in Physiology.
- (8) „ M. Sundaranathan, Lecturer in Pharmacology.

The lectureship in Physiology which was vacant since its creation, was filled up during the year under report. Each of the professors and lecturers had an assistant borne on the cadre of the Madras Veterinary Subordinate Service.

(b) Training.

6. The new curriculum of studies which was introduced with effect from 1st July 1930 and which was in force in the first and second year classes in the previous year, was extended to the final year class in July 1932, so that during the year under report the new curriculum was in full force in the College, and the students who passed out of the College in March 1933 had the benefit of

* Plains.

† Agency.

the instructions imparted to them under the new curriculum, throughout their course. The subjects taught under the new curriculum for the third year class were—

- (1) Surgery including Obstetrics, Soundness and Jurisprudence.
- (2) Therapeutics and Toxicology.
- (3) Preventive Medicine including Meat and Milk inspection and Sanitary Law.
- (4) Hygiene including Genetics and Nutrition.

Every facility as in previous years was afforded to the students for obtaining a practical knowledge of the different subjects prescribed for the course under the new curriculum. As many opportunities as possible were afforded to the students of the final year class for obtaining a direct knowledge of the several disease conditions prevailing in the Madras Presidency, and with the facilities afforded by the new extensions of the College, certain common disease conditions were experimentally reproduced for demonstration to the students. The students were also sent to the newly opened Serum Institute in batches for acquiring direct knowledge of the work done there.

(c) Admission of Students.

7. The term of office of the members appointed in 1929 to the Committees for the selection of candidates for admission to the College, having expired, the Committees were reconstituted during the year as follows, the members holding office for three years:—

MADRAS.

President.

- (1) Principal, Madras Veterinary College (Ex-Officio).

Members.

- (2) Khan Bahadur S. K. Abdul Razak Sahib Bahadur, Saidapet.
- (3) M.R.Ry. Rao Bahadur T. M. Narayanaswami Pillai Avargal, M.L.C., Trichinopoly.
- (4) M.R.Ry. N. Sivaraj Avargal, B.A., B.L., M.L.C., Madras.
- (5) M.R.Ry. K. Rangayya Nayudu Garu, B.A., B.L., Advocate, Madras.

BEZWADA.

President.

- (1) Principal, Madras Veterinary College (Ex-Officio).

Members.

- (2) M.R.Ry. K. Sarabha Reddi Garu, Cumbum, Kurnool district.
- (3) M.R.Ry. P. C. Moses Avargal, M.L.C., Guntur.
- (4) Mahaboob Ali Baig Sahib Bahadur, M.L.C., Bezwada.
- (5) Dr. D. Govindarajulu Nayudu Garu, Bezwada.

The Committee met at Bezwada and Madras on the 27th and 29th June 1932, respectively, and selected 44 students in all for admission, leaving 12 candidates in the waiting list. The total strength of the first year class at the end of the session was 45 including the failed students of the previous year who rejoined the class. Of these 45 students, 41 were paying students, while 4 were non-paying students admitted to the College prior to the introduction of tuition fees. As regards the educational qualifications of these students, 14 were Intermediates and above, while the remaining 31 were Secondary School-Leaving Certificate holders declared eligible for the college course.

In the second and third year classes, there were 42 and 31 students, respectively, at the end of the year. Thus the total number of students on the rolls in all the three classes at the end of the session was 118, as against 125 of the previous year. The different communities to which these 118 students belonged are shown below:—

Non-Brahmans	...	...	...	...	...	42
Brahmans	...	...	...	...	...	39
Indian Christians and Anglo-Indians	...	...	...	...	...	15
Muhammadans	...	...	...	...	...	14
Other communities including depressed classes	...	...	...	...	...	8
						—
Total	...	...	...	...	...	118
						—

(d) Tuition Fees and Scholarships.

8. Hitherto no tuition fee was charged from students in the College who were domiciled natives of this Presidency. During the year, however, as a result of the recommendations of the Retrenchment Committee, Government issued orders abolishing free tuition at the College and prescribing a tuition fee of Rs. 90 per annum each for students from this Presidency admitted to the College from 1st July 1932, the fee for private students (i.e.), Native States and other Government scholars remaining at Rs. 400 per annum per student as usual. The system of the award of stipends was also discontinued during the year and in its stead, four scholarships of the value of Rs. 15 per mensem were sanctioned by Government for award to the members of the depressed and backward classes.

(e) Professional Examinations.

9. A supplementary examination was held for the students of the first and second year classes who failed in not more than one subject in the annual examination of March 1932 and who were provisionally promoted to the second and third year classes, respectively. A special examination was also held at the same

time for the students of the final year class who failed at the annual examination held in March 1932 under the old curriculum. Both the supplementary and special examinations were conducted by the Director of Veterinary Services and the Principal, Madras Veterinary College. Six students of the first year class appeared for the examination and five passed, seven students of the second year class appeared and all the seven passed and nine students of the third year class appeared and five passed.

The annual professional examinations of the College were held during the year, as usual, in March 1933 and were conducted by an Examining Board specially constituted for the purpose. The President and Members of the Board were—

President.

- (1) Mr. P. T. Saunders, Director of Veterinary Services, Madras.

Members.

- (2) Major C. A. Murray, D.A.D.V.S., Bangalore.
 (3) Mr. T. J. Hurley, Principal, Madras Veterinary College.
 (4) „ V. Krishnamurti Ayyar, Professor of Pathology and Bacteriology, Madras Veterinary College.
 (5) Mr. K. Kailasam Ayyar, Superintendent, Serum Institute, Madras.

In the first year class, 45 students appeared for the examination and 32 passed, in the second year class 41 appeared and 29 passed; and in the third (final) year class 31 appeared and 22 passed and were awarded the Diploma of the College. The Board of Examiners considered the results satisfactory. The Board was also of the opinion that as a result of the introduction of the new curriculum of studies, the general standard of knowledge shown by the final year class students was definitely higher.

(f) Refresher Course.

10. As in the previous year, the refresher course was not held at the College during the year.

(g) University Degree in Veterinary Science.

11. The question of the introduction of a University Degree in Veterinary Science and the affiliation of the Madras Veterinary College to the Madras University, to which a reference was made in the previous year's report, is still under the consideration of the University.

(h) Hostel, Health and Athletics.

12. The students' hostel attached to the Madras Veterinary College was under the supervision and management of the Lecturer in Hygiene who was also the Superintendent of the hostel during the year. Eighty-six students were residing in the hostel and

there were two messes, vegetarian and non-vegetarian, which was managed by the representatives of the students themselves under the guidance of the Superintendent of the hostel.

The health of the students was uniformly good during the year and their conduct satisfactory. The athletic activities of the students were also good.

(ii) Hospital.

13. Mr. K. S. Nayar, Lecturer in Surgery, was in charge of the Veterinary hospital attached to the Madras Veterinary College during the year and the hospital continued to show satisfactory progress. There was an appreciable increase in the total number of admissions to the hospital during the year as compared with the previous year, the figures for the two years 1932-33 and 1931-32 being 5,410 and 4,680 respectively. The daily average attendance at the hospital also increased from 70.6 in the previous year to 75.89 during the year under report, and there was also an increase in the hospital receipts from Rs. 4,303-15-0 in the previous year to Rs. 4,660 in the year under report.

The branch veterinary dispensary for out-patients at Rayapuram continued to be under the control of the Principal, Madras Veterinary College, and it also showed satisfactory progress during the year. The total number of cases treated at the institution increased from 2,958 in the previous year to 3,838 during the year under report. The daily average attendance at the dispensary also increased from 31.6 in the previous year to 37.37 during the year. Twenty-seven cases of special interest were transferred from this institution to the Madras Veterinary College for treatment during the year.

(iii) Shoeing Forge.

14. The shoeing forge attached to the Madras Veterinary College continued to be utilized to give the students practical instruction in shoeing. Eight hundred and eighty-three horses were shod and 46 shoes were repaired during the year as against 870 and 118 respectively, in the previous year. There was a net profit of Rs. 392-9-3 in the working of the forge during the year, as against Rs. 441-9-9 in the previous year.

(iv) Laboratory.

15. Messrs. V. Krishnamurti Ayyar, Professor of Pathology and Bacteriology and M. Anant Narayan Rao, Lecturer in Parasitology, continued to be in charge of the Pathological and Parasitological sections respectively, of the laboratory attached to the Madras Veterinary College, during the year. The number of specimens received and examined in both the Pathological and

Parasitological sections during the year was 4,022 as detailed below:—

(1) From the staff of the Civil Veterinary Department	2,573
(2) From the wards of the College and Veterinary Dispensary, Rayapuram	1,223
(3) From the Agricultural College	3
(4) From the Forest Department	3
(5) From other Presidencies and States	34
(6) From dairy and other farms	45
(7) From the Corporation of Madras	141
Total	4,022

This number is exclusive of the specimens examined as a routine in connexion with the post-mortem examinations conducted in the College. Details of the work done in the two sections are given below.

16. (a) *Pathology section*.—Fifteen samples of industrial material were received for examination during the year and Anthrax infection was detected in three of them.

In the course of the examination of the different materials received in this section as well as of carcasses for post-mortem examination, special mention deserves to be made of the following.

17. *Johne's disease*.—The existence of infection in bovines was confirmed during the year microscopically in a cow belonging to the Wellington Dairy Herd and in two cases in the Hosur Cattle Farm by the bowel washing method.

18. *Tuberculosis*.—Three cases of tubercular infection in bullocks belonging to the Corporation of Madras and one in an elephant belonging to the Forest department were confirmed microscopically. Cases of tuberculosis in fowls have been met with in materials from two cases among fowls received from the Veterinary hospitals, Calicut and Tiruvannamalai respectively, and from a case used for experimental purposes at the College.

19. *Anthrax*.—In addition to the confirmation of anthrax in bovines, two cases from elephants belonging to the Tirupati Devasthanam were confirmed microscopically.

20. *Contagious abortion*.—Serum from a cow suspected for contagious abortion was received twice from the Agricultural College, Coimbatore, and it gave negative results on both the occasions.

21. *Spirocerca sanguinolenta*.—The occurrence of tumours caused by the parasite in some unusual situations in the course of routine post-mortem in this section forms an interesting finding hitherto not recorded.

22. *Post-mortems*.—The total number of post-mortems conducted in this section on requisition was 94. This excludes the number of post-mortems made on experimental animals in connexion with the routine diagnostic work and research.

23. *Vaccine*.—During the year autogenous vaccines were made for 52 cases of which 42 were cases of bovine lymphangitis. The results of treatment in all cases were reported to be very satisfactory.

24. (b) *Parasitology section—Nasal granuloma in cattle*.—Nasal washings from 271 cases of nasal granuloma in cattle were examined in the laboratory and ova of Schistosomes was detected in 228 cases and Rhinosporidium in one case. Forty-two cases proved negative. It is interesting to note that Rhinosporidiosis can be easily diagnosed when the nasal scrapings or washings are cleared in 3 per cent potassium hydroxide solution. The sporangia can be very easily recognized under the microscope. This appears to be an easy method to arrive at a diagnosis rapidly.

25. *Helminthes*.—Forty-nine bottles containing specimens of helminthes were received from the different parts of the Presidency. Besides these, 28 bottles of specimens were collected by the staff of the section.

The following worms were added to the collection of the College Museum:—

(1) Physaloptera sp.	...	...	Tiger
(2) Taenia taeniaformis	...	...	"
(3) Toxocara mystax	...	...	"
(4) Paragonimus westermani	...	...	"
(5) Filaria sp. (vomitted by a dog)	...	...	Dog
(6) Anaplocephala mammilana	...	...	Horse
(7) Globocephalus sp.	...	...	Pig
(8) Schistosome (New sp.)	...	...	"
(9) Uncinaria sp.	...	...	"
(10) Arduenna strongylina	...	...	"
(11) Physocephalus sexalatus	...	...	"
(12) Stephanurus dentatus (liver)	...	...	"
(13) Gnathostoma sp.	...	...	Wild cat
(14) Physaloptera sp.	...	...	"
(15) Diphyllbothrium sp.	...	...	"
(16) Toxocara mystax	...	...	"
(17) Schistosomes from nasal lesions	...	...	Cattle
(18) Cysticercus cellulosæ	...	...	Pig

26. *Ectoparasites*.—Thirty-four bottles containing ticks, etc., collected from cattle, sheep and goats were received during the year. The following were found among the specimens:—

- (1) *Hæmophysalis bispinosa*.
- (2) *Rhipicephalus sanguineus*.
- (3) *Rhipicephalus hæmophysaloids*.

- (4) *Margaropus annulatus*.
- (5) *Hyalomma ægyptium*.
- (6) *Ornithodoros savignyi*.
- (7) Larvæ of *œstrus ovis*.
- (8) *Stomoxys calcitrans*.
- (9) *Tabanus* sp.
- (10) *Ctenocephalus canis*.

One bottle containing parasites from the pharynx of a dog was received from Ootacamund and it was found to be a *Pentastoma* sp. This is the first record of its kind in this Presidency.

Infection of *Cysticercus cellulosæ* was detected in a few of the pigs slaughtered at the Madras slaughter-house and they have been reported to have come from the North Arcot district.

With a view to find out if a dog could be an occasional host for *Tænia solium*, one was fed with pork containing a very large number of live cysts with negative results.

27. (c) *Clinical laboratory*.—During hospital hours, the clinical laboratory continued to examine smears, fæces and scrapings from the different wards of the College hospital as well as from the cattle depots of the Corporation of Madras. It also afforded facilities for the students to gain a practical knowledge in the different methods adopted for the examination of specimens with a view to arrive at a correct diagnosis.

28. (d) *Physiological laboratory*.—A systematic examination of urine was started during the year. In all, 206 samples were examined and it was found that albumen was present in 36 samples (one equine, seven bovines and 28 canines). Sugar was detected in four samples (one equine and three canines) and blood was present in six samples (one bovine and five canines).

III.—SERUM INSTITUTE.

29. The Institute for the manufacture and supply of anti-rinderpest serum in this Presidency referred to in the previous year's report, was opened on the 7th April 1932 and the office was located in the Madras Veterinary College buildings at the beginning. Later on, the Institute was transferred to its present buildings at Perambur.

30. (a) *Staff*.—The staff of the Institute, besides the necessary clerical and other subordinate and menial staff, consisted of one Superintendent and seven Veterinary Assistant Surgeons. Mr. K. Kailasam Ayyar, Madras Veterinary Service Officer was appointed as Superintendent of the Institute and he held charge of it from the date of its opening to the end of the year. During the year, he visited some of the cattle centres in the Presidency for examining the types of buffaloes available for serum production. He also visited during the year the Imperial Institute of Veterinary Research, Muktesar, the Imperial (Branch) Veterinary Serum Institute, Izatnagar, and the Haffkine Institute, Bombay, with a

view to acquaint himself with the methods adopted in those institutions in the manufacture of sera and vaccines.

31. (b) *Serum section*.—The actual manufacture of anti-rinderpest serum in the Institute commenced on 21st June 1932 and the supply of local serum, from the 18th August 1932. From the beginning of the year until serum was manufactured at the Institute, the total quantity of anti-rinderpest serum obtained from Muktesar was 252,000 doses of 5 c.c. each. From the commencement of manufacture to the end of March 1933, 920,700 unit doses (5 c.c. each) representing 22 brews of serum were manufactured and issued to the staff of the department, and at the close of the year, one brew of serum was under test and three others were awaiting completion of the process. All the manufactured brews of serum, in point of potency and freedom from bacterial contamination were such as could be issued for use in the field. The total number of serum makers (he-buffaloes) purchased during the year was 1,032 and the number of calves purchased and used as serum testers, 138.

The results of the inoculations conducted in the districts with the anti-rinderpest serum issued from the Institute were satisfactory. During the year, 101,115 head of cattle were inoculated by the Serum Simultaneous method in this Presidency and 151 animals by the 'Serum alone' method. The number of outbreaks in which inoculation was undertaken is 492. The number of animals which died before inoculation during the year was 7,050 and this number is very small when compared with the previous years' figures, viz., 16,262 in 1931-32 and 33,361 in 1930-31, and it is due to a large extent to the prompt supply of serum made available from the Institute which ensured the protection of cattle in time against rinderpest by the Serum Simultaneous method of inoculation. The anticipations in regard to the possibility of producing anti-rinderpest serum at a cheap cost have also been fully realized, as there has been a saving of over a lakh and a half of rupees in the expenditure on anti-rinderpest serum during the current year as compared with the cost of serum obtained from Muktesar in the previous year.

32. (c) *Virus section*.—With the opening of the Serum Institute, the work of the manufacture and supply of rinderpest virus which was previously done at the Madras Veterinary College was transferred to the Serum Institute from 20th June 1932. From this date to the end of the year under report, 167,200 doses of 1 c.c. each of bull virus and 325 doses of 1 c.c. each of goat virus were produced and supplied to the staff. Three hundred and thirty-eight calves and 81 sheep and goats were purchased for virus manufacture during the year.

33. (d) *Laboratory work*.—Some items of research incidental to the propagation and preservation of potent strains of the virus were introduced during the year. The total number of specimens

examined microscopically is 15,842 comprising of 15,786 blood smears and 56 samples of faeces. Of these, 1,437 and 27 respectively proved positive as shown below:—

(i) *Blood smears*.—Trypanosomes 123, Piroplasma 195, Theileria 944, Microfilaria 136, Anthrax 1, Haemorrhagic Septicæmia 16, Piroplasma and Theileria 16, Piroplasma and Trypanosomes 3, Theileria and Microfilaria 3.

(ii) *Fæces*.—Coccidia 11, Strongyles 13, Haemonchus 2, Amœba 1.

34. (e) *Diseases among serum makers and virus producers*.—A sporadic case of Anthrax occurred in the rinderpest virus camp on the 20th November 1932 which was fortunately controlled without further spread. An outbreak of Haemorrhagic Septicæmia broke out amongst the serum makers and resulted in eighteen deaths between 10th and 19th February 1933. Prompt measures were taken and the outbreak was suppressed without any serious interference with the work of the Institute.

35. (f) *Storage of sera and vaccines*.—The work of storing and supplying of all other kinds of veterinary sera and vaccines which was previously being done by the King Institute, Guindy, and the Pasteur Institute, Coonoor, was transferred to the Serum Institute during the year where adequate provision for cold storage has been made.

IV.—INVESTIGATION AND RESEARCH.

(a) *Rinderpest Investigation*.

36. A reference was made in the previous year's report to the investigation of the incidence and the methods adopted for the control of rinderpest in this Presidency, by a special officer appointed for the purpose temporarily for a period of two years. Mr. C. Suryanarayanamurti Pantulu Garu, Madras Veterinary Service Officer, held this special post throughout the year under report, and towards the close of the year he completed his investigations and was engaged in the preparation of his report. Since the close of the year, the Special Rinderpest Officer has submitted his report and the report is being examined with a view to its publication.

(b) *Experiments with goat virus*.

37. During the year under report, experiments were conducted on the use of goat virus in inoculating cattle against Rinderpest as an alternative to serum simultaneous inoculations, and Mr. R. Narasinga Rao, District Veterinary Officer, Madras, conducted these experiments in his jurisdiction. The experiments were conducted in ten villages and as many as 129 cattle were inoculated with goat virus of which 84 reacted. It was necessary to give serum to nine Mysore animals to modify the reaction

which was observed to be more severe in these breeds than in the local breeds. Fifteen goats were used as virus producers in the field. Only two of them died—one from Anthrax on the 17th day after inoculation and the other from a severe rinderpest reaction on the 8th day after inoculation. This goat received 22nd passaged goat virus of the Serum Institute. The reactions observed in the animals inoculated with the 28th passaged goat virus of the Serum Institute were more severe than those which occurred in animals inoculated with the 2nd and 3rd passaged goat viruses. On testing the immunity of two animals with bull virus they were found to be fully protected. There was only one death among the inoculated cattle and this was due to *Piroplasma Bigeminum*. The following are the results of the experiments:—

			Number of animals inoculated.	Number of reactors.
First passaged goat virus	...	...	9	9
Second passaged goat virus	...	...	49	33
Third passaged goat virus	...	...	2	1
Twenty-third passaged goat virus	...	...	51	30
Twenty-eighth passaged goat virus	...	...	18	11
			—	—
Total	...	...	129	84
			—	—

Although the experiments so far conducted indicate that cattle can be successfully immunised by this method of inoculation, no definite conclusions can be arrived at before conducting further experiments on a larger scale, for which arrangements are being made.

(c) *Indigenous Methods of Treatment.*

38. In the previous year's report, a reference was made to the scheme for the appointment of a research staff to make an investigation on scientific lines of the indigenous drugs from the Veterinary standpoint of view. Although the scheme was considered and accepted by the Advisory Board of the Imperial Council of Agricultural Research, with slight modifications, as early as in 1931, the sanction of the Council to the scheme has not yet been received.

(d) *Diseases Investigation—General scheme of the Imperial Council of Agricultural Research.*

39. The general scheme for the appointment of a Veterinary Investigation Officer sanctioned by the Imperial Council of Agricultural Research, and referred to in the previous year's report is to be given effect to in this Presidency in 1933-34.

Since the close of the year 1932-33, Government issued orders appointing the Veterinary Investigation Officer and the officer is now undergoing preliminary training at the Imperial Institute of Veterinary Research, Muktesar.

(e) *Research Work at the Madras Veterinary College Laboratory.*

40. The following items of research work were in progress in the Pathological and Parasitological sections of the laboratory attached to the Madras Veterinary College:—

(i) *Black-quarter.*

41. Government in their Order Ms. No. 1275, Development, dated 27th September 1932, sanctioned a scheme for the conduct of an investigation into the extent of incidence of Black-quarter in the several districts of the Presidency, the existence or otherwise of any special endemic centres of the disease, the organism or organisms responsible for such outbreaks and the seasonal conditions affecting the endemicity, if any. This investigation was started in October 1932 and specimens consisting of smears and muscle strips from 101 cases have been examined and information with regard to other particulars is also being collected. The investigation so far conducted reveals that while there have been authenticated cases of Black-quarter, there have been other cases in which neither the biological tests nor the examination of smears have proved that they were really cases of Black-quarter. The study of the subject is being continued.

(ii) *Pseudo-fowl Pest.*

42. An investigation into the study of the nature of the virus of pseudo-fowl pest, its behaviour in the different species of poultry during its passage and the manner in which the virus could be kept up without deterioration, was undertaken with a view to formulating a scheme for necessary investigation into the several aspects of this disease which has been causing heavy economic and financial loss among poultry owners. The necessary materials to aid in the investigation were obtained from the staff from various centres in this Presidency, and also locally from several centres within the city where the disease was prevailing. An insight into its incidence with a view to establishing the identity or otherwise with the conditions as prevalent in the different outbreaks in the Madras Presidency, and with what has been described by other workers, was obtained. The course of the disease was observed in the naturally-infected poultry as well as upon experimentally-infected ones. The infectivity of certain tissues and body excretions was also studied with special reference to the nervous system to which the virus appears to have a great predilection.

Of the different species of poultry experimented with, fowls were found to be most susceptible and ducks least. Pigeons, however, appear to show comparatively greater resistance to infection by contact as has been observed in natural outbreaks. A start was made in the preparation of a vaccine from the brain of infected birds for prophylactic use. The vaccine so prepared was tested on fowls and pigeons. The results indicated that there had been undoubtedly some effect as there was a definite prolongation of the incubation period in the vaccinated birds, and some of the birds even withstood a very severe test of the virulent virus. Certain modifications in the preparation of the vaccine, perhaps, may improve its quality and experiments in this direction are in progress.

(iii) Preparation of anti-pituitary hormone.

43. With a view to adopting the Zondek and Aschheim test urine hormone from pregnant cows was prepared and sent out to be tested in the field.

(iv) Nasal Schistosomiasis.

44. Having found that ova of schistosomes could be detected in the nasal washings collected from cattle suspected to be suffering from nasal granuloma and with a view to finding out the extent, incidence and study of infection in cattle, materials were not only obtained from the staff of the Civil Veterinary Department but also collected by the Lecturer in Parasitology personally. The number of specimens received from the staff in the shape of nasal washings was 271 and the number of cases from which the Lecturer had collected exceeded 120. The disease has also been found by him to occur in buffaloes. For the study of cercarial fauna, over 6,000 fresh water snails from different areas were collected by him with a view to finding out the predominating species of schistosome cercariae and the probable one concerned in the production of nasal schistosomiasis. The cercaria concerned resembled *C. indicæ* *** (Sewell 1922) and were obtained from two species of snails, viz., (a) *Limnea leutiola* and (b) *Planorbis exustus*. The percentages of infection in the respective snails collected were 1.7 and 1.27 respectively. Government in their Order Ms. No. 1277, Development, dated 27th September 1932, sanctioned a scheme for the conduct of research on this condition and three calves were selected and infected with cercariae by three different modes. All the calves experimented with are reported to have shown ova in their nasal washings and two of them tumefaction of the nasal mucous membrane and small abscesses. Further study of this disease is in progress.

(v) Trypanosomiasis.

45. Government in their Order Ms. No. 92, Development, dated 23rd January 1933, sanctioned a scheme for the investigation into

the pathogenicity or otherwise of the trypanosomes found in cattle on the equine species. The experiment was started in the latter part of the year. Two strains of trypanosomes were obtained, one from a bovine and the other from a canine. A pony injected with the bovine strain died after 35 days. Further experiments are in progress.

(vi) Helminthic Infection.

46. Apart from the study of nasal schistosomiasis, an insight into the incidence and extent of infection of schistosomes in the different species of animals was obtained by the examination of cattle, sheep and pigs, slaughtered at the slaughter-houses at Madras. The schistosomes found in cattle and sheep were mostly of the *schistosoma spindalis* type (Montgomery, 1916). None of these cases are reported to have shown nasal lesions. From only one sheep out of 170 sheep and goats examined, a large number of *schistosoma spindalis* was recovered from the portal vein. Eighty-one pigs were examined at the pig slaughter-house in Madras and from five of them five pairs of new species of schistosomes were recovered.

V.—CONTAGIOUS DISEASES.

47. There has been an appreciable decrease in the mortality of cattle from contagious diseases during the year, the total number of deaths reported being 40,196 as against 56,634 of the previous year—the lowest figure recorded for many years. Kurnool, Nellore and Chittoor are the districts which suffered most during the year, the number of deaths in these districts being 6,299, 4,563 and 3,275 respectively. As usual, the largest number of deaths was from Rinderpest although, as anticipated, the incidence of this disease in the Presidency during the year has been milder than in the previous years.

The total number of reports of cattle diseases received and attended to by the staff during the year was 3,998 and 3,299 respectively, as against 3,956 and 3,442 respectively of the previous year. There was no change in the arrangements for the reporting of outbreaks of cattle diseases during the year, the village munsifs remaining responsible for the same. Ninety-three reports were made against the village officers for slackness in reporting outbreaks or for irregular maintenance of mortality registers during the year.

48. Most of the municipalities which adopted the by-laws relating to the control of animal diseases and the maintenance of cattle mortality registers continued to work the by-laws satisfactorily and reported outbreaks and mortality promptly.

49. *Rinderpest*.—In the previous year's report it was stated that the peak of the "wave" seemed to have been reached and that it was expected that the incidence of Rinderpest would not

materially increase again for two or three years. This expectation appears to have been realized in that the incidence of this disease throughout the Presidency during the year has been considerably less than in the previous years. There were no virulent outbreaks or heavy mortality in any of the districts as compared with the previous years and, in fact, judging from the absence of reports of outbreaks and from the remarkable fall in mortality figures, most of the districts, particularly Salem, the Nilgiris, Coimbatore, Malabar, Trichinopoly, Tanjore and Vizagapatam were comparatively free from the disease during the year. The total number of deaths from this disease reported during the year was 12,735 as against 28,412 in 1931-32. The only districts where the mortality can be said to have been heavy, are Kurnool and Nellore, the figures for the two districts being 3,806 and 2,473 respectively.

The number of outbreaks in which inoculations were undertaken during the year was considerably less than in the previous year, the figures for the two years 1932-33 and 1931-32 being 492 and 902. The total number of inoculations performed during the year against Rinderpest by the serum simultaneous method and serum alone method was 101,115 and 151 respectively as against 113,566 and 759 of the previous year. The necessary serum being readily available as the result of the establishment of a Serum Institute in this Presidency, arrangements were made during the year to carry out inoculations against Rinderpest on a large scale even in the absence of outbreaks, to protect cattle against a possible recrudescence of the disease, and a number of inoculations were performed in this way, and the total number of serum simultaneous inoculations for the year given above, includes those performed in the absence of outbreaks.

50. *Anthrax*.—There has been a perceptible decrease in the mortality from this disease during the year, the number of deaths reported being 3,605 as against 4,734 in the previous year. Four thousand three hundred and eighteen cattle were inoculated with anti-serum as against 1,794 animals of the previous year.

51. *Hæmorrhagic Septicæmia*.—There has been a slight increase in the number of deaths reported from this disease during the year, the figures for the two years 1932-33 and 1931-32 being 6,464 and 6,145 respectively. Thirty-six thousand one hundred and fifty-nine serum inoculations were performed against this disease during the year as against 24,377 of the previous year.

52. *Black-quarter*.—The incidence of this disease during the year has been rather severe and comes next to Rinderpest. This disease was responsible for a large percentage of the total mortality from contagious diseases during the year. The number of deaths from this disease reported during the year was 9,351 as against 5,358 in the previous year. A far larger number of inoculations than in the previous year was performed against this disease

during the year, the figures for the two years being 46,179 in 1932-33 and 18,112 in 1931-32. Of the 46,179 inoculations, 37,177 were performed by the serum and aggressin method and 9,052 by the serum alone method.

53. *Foot-and-mouth disease*.—The number of deaths from this disease reported during the year was 1,346 as against 1,753 in the previous year.

54. *Bovine Lymphangitis*.—This disease was confirmed microscopically in 49 cases and 42 cases were treated with the vaccine prepared at the Madras Veterinary College with very satisfactory results.

55. *Glanders*.—As in the previous year, there was no outbreak of Glanders and Farcy during the year under report. Of the 182 horses tested for Glanders and Farcy in the Madras City by the Veterinary Assistant Surgeon on Glanders duty, none gave a positive reaction.

56. *Trypanosomiasis*.—A few outbreaks of this disease were reported during the year. Fifty-one cases were confirmed microscopically for this disease, of which 28 were equines, 21 bovines and 2 canines. Of these 28 equines, 6 ponies were destroyed under the Glanders and Farcy Act and compensation paid to owners.

The treatment of this disease with Naganol (Bayer 205) was tried in several cases with satisfactory results.

57. *Nasal Granuloma*.—About 460 cases of Nasal granuloma were met with during the year and microscopical confirmation was obtained in several of the cases. Antimonium tartaratum was used in the treatment of this condition and proved to be a very satisfactory drug.

58. *Piroplasmosis*.—This disease was confirmed in 90 cases during the year, several of which were successfully treated with intravenous injection of trypanblue.

59. *Strangles*.—About 52 cases were treated for Strangles during the year.

60. *Kumri*.—A few cases of this disease were diagnosed during the year.

61. *Coccidiosis*.—This disease was confirmed in 14 bovine cases.

62. *Sheep-pox*.—There were a few outbreaks of sheep-pox during the year and they were promptly attended to.

63. *Rabies*.—This disease was confirmed in 163 animals. Confirmation was not sought for in about 15 cases. Seventy-seven animals were given anti-rabic treatment in the several veterinary institutions in the Presidency.

64. *Poultry diseases*—(i) *Fowl cholera*.—There were outbreaks of fowl cholera in some of the districts in the Presidency and 350 fowls were protected with fowl-cholera vaccine.

(ii) *Pseudo-Fowl pest*.—A smaller number of outbreaks of this disease than in the previous year occurred during the year and 567 fowls were protected with a vaccine prepared at the Madras Veterinary College.

65. *Skin diseases*.—Intra-muscular injections of sterile milk (milk therapy) were given in a number of cases of skin affections of non-parasitic origin and the results in most of the cases were reported to be successful.

66. *Other diseases*.—The following are the other important diseases dealt with during the year:—

(i) *Chronic Luxation of Patella-Bovines*.—About 79 cases were treated with injections of Lugol's solution of iodine with very good results.

(ii) *Johne's disease*.—Two cross-bred cows at the Hosur Cattle Farm were suspected for this disease and on an examination of the rectal washings of both the cows at the Madras Veterinary College, acid fast organisms were found in both the cases. One cow died and the other was destroyed. This disease was also confirmed in a cow belonging to the Wellington Dairy Herd.

(iii) *Ephemeral fever*.—Nine cases were met with.

(iv) *Tuberculosis*.—Four cases were diagnosed for this disease—3 in bullocks belonging to the Corporation of Madras and 1 in an elephant of the Forest department. Cases of Tuberculosis were also met with in fowls.

VI.—HOSPITALS AND DISPENSARIES.

67. The total number of veterinary institutions at the end of the year was 113 including those attached to the Madras Veterinary College and the Cattle Farms at Coimbatore and Hosur, but excluding the private institutions at Vizianagram and Pithapuram, as against 114 at the end of the previous year. The decrease in the number is due to the closure of the Livestock Research Station at Chintaldevi and the Veterinary Hospital attached thereto. No new veterinary institutions were opened during the year.

There has been an appreciable increase in the total number of in-and out-patients treated in the several veterinary institutions in the Presidency during the year, the figures for the two years 1932-33 and 1931-32 being 217,059 and 193,506, respectively. The number of cases supplied with medicine but not brought to the institutions during the year was 12,506 as against 14,375 in the previous year.

The leading institutions in the Presidency with the number of cases treated in each are shown below:—

Name of the institution.	Number of cases treated.
(1) Veterinary Hospital, Coimbatore ...	5,578
(2) Madras Veterinary College Hospital ...	5,410
(3) Veterinary Hospital, Trichinopoly ...	4,786
(4) Veterinary Dispensary, Conjeeveram ...	4,504
(5) Veterinary Hospital, Rajahmundry ...	3,980
(6) Veterinary Dispensary, Rayapuram ...	3,838
(7) Veterinary Hospital, Salem ...	3,777
(8) Veterinary Hospital, Calicut ...	3,450
(9) Veterinary Dispensary, Madura City ...	3,270
(10) Veterinary Hospital, Mangalore ...	2,977
(11) Veterinary Dispensary, Negapatam ...	2,882
(12) Veterinary Hospital, Saidapet ...	2,821

VII.—ITINERATING STAFF.

68. There was no increase in the number of touring posts in the department during the year, the total number of such posts at the end of the year remaining at 97 as in the previous year. The headquarters of the Touring Veterinary Assistant Surgeon, Kulittalai and Tiruturaipundi in the Trichinopoly Circle, were shifted during the year to Musiri and Pattukkottai respectively, and the headquarters of the Touring Veterinary Assistant Surgeon, Chandragiri in the Madanapalli Circle to Tirupati. In the Coimbatore Circle also, the headquarters of the Touring Veterinary Assistant Surgeons, Tiruppur, Udamalpet and Erode, were changed to Coimbatore, Palladam and Bhavani respectively.

The total number of cases treated by the itinerating staff during the year was 74,132 as against 74,147 of the previous year. Of these, 24,671 were contagious cases and 49,461 non-contagious.

VIII.—CASTRATIONS.

69. A larger number of castrations were performed during the year than in the previous year, the figures for the two years being 41,546 and 31,760 respectively. Most of the castrations were done by the Burdizzo method which is becoming increasingly popular among the ryots. The largest number of castrations performed was in the districts of East Godavari, Ganjam and Malabar.

IX.—MISCELLANEOUS.

70. *Criminal Poisoning and malicious injury*.—The Chemical Examiner to Government examined the viscera of 69 animals during the year and poison was detected in 21 cases. Nine cases of criminal poisoning were prosecuted resulting in five convictions and four acquittals. One hundred and sixty-two animals were examined by the staff of this department for malicious injury during the year and the necessary certificates were issued to the Police.

71. *S.P.C.A.*—The total number of convictions obtained under the Prevention of Cruelty to Animals Act in the Presidency during the year, excluding Madras City, was 10,299 as against 8,426 of the previous year, Trichinopoly and Coimbatore districts, recording, as usual, the largest number of convictions, the figures for the two districts being 3,166 and 2,055 respectively. Out of the total number of cases in which the accused were convicted, the animals in 2,620 cases were remanded to the veterinary institutions declared as infirmaries under the Act for treatment as against 1,737 cases so remanded in the previous year.

72. *Forest livestock.*—The general condition of the forest livestock during the year is reported to be satisfactory. There were eight deaths among the working elephants. One was suspected to be due to Anthrax and the necessary precautionary methods were taken to prevent the spread of the disease to the other elephants. There was also a suspected case of Tuberculosis in an elephant. The animal in this case was showing symptoms of emaciation and lung affection and as it showed no signs of improvement, it was destroyed and a post-mortem examination conducted. An examination of the smears from the lesions found in the lungs of the animal revealed the presence of Acid-fast bacilli indistinguishable from Tubercle bacilli.

73. *Meat inspection.*—Several municipalities and panchayat boards availed themselves of the services of local Veterinary Assistant Surgeons for meat inspection work during the year and in a few cases, municipalities continued to employ whole-time Veterinary Officers for this work. The municipalities at Ellore, Cuddalore and Mannargudi and the panchayat boards at Tanuku and Devakottai ceased to utilize the services of the Veterinary Assistant Surgeons in charge of the veterinary institutions in these places for meat inspection work during the year as a measure of retrenchment. The Veterinary Assistant Surgeon in charge, Veterinary Dispensary, Ranipet, resigned towards the close of the year the meat inspection work which he was attending to for the Ranipet Panchayat Board, as the board reduced the amount of the remuneration offered to him.

74. *Lethal chambers.*—Most of the lethal chambers for the destruction of stray dogs maintained by the local boards and municipalities in the Presidency were periodically inspected by the staff of this department.

75. *Propaganda.*—As in previous years the department participated in the Health and Baby Week shows and other exhibitions and exhibited various items of popular and scientific interest. Advantage was also taken of the several cattle fairs and exhibitions to conduct magic lantern demonstrations and popular lectures in veterinary matters; leaflets published by this department on some of the important diseases of animals were distributed free to the ryots. The motor exhibition vans of the Agricultural department were also used for veterinary propaganda work.

In addition to the twelve sets each consisting of 200 magic lantern slides on Rinderpest, Anthrax, Blackquarter, Foot and Mouth disease, etc., supplied to the District Veterinary Officers in the previous year for propaganda purposes, three more sets of slides, one in English, another in Tamil and a third in Telugu, each consisting of 136 slides on diseases of animals communicable to man, viz., *Tania solium*, *Tania saginata*, *Echinococcus granulosum*, *Dipylidium caninum*, *Trichinella spiralis*, Rabies, Tuberculosis of bovine origin, *Sarcoptes scabiei*, etc., were prepared at the Madras Veterinary College and supplied to the District Veterinary Officers during the year. Of these, the English set was supplied to the District Veterinary Officer, Madras, for use throughout the Presidency whenever required, the Tamil set to the District Veterinary Officer, Trichinopoly, for use in all the Tamil districts and the Telugu set to the District Veterinary Officer, Bezwada, for use in the Telugu areas.

76. *Fairs and shows.*—Several annual and weekly cattle fairs were held during the year and were attended by the staff of this department. Owing to the prevalence of Rinderpest, the provisions of the Cattle Diseases Act were enforced in 39 fairs and in all these cases, a Veterinary Assistant Surgeon was deputed for duty in each of the fairs.

77. *Horse-breeding.*—In addition to the Arab Stallion purchased by the Coimbatore District Board for breeding purposes and stationed at Nathakadayur, a new stallion was acquired by the District Board during the year and it was stationed at the Veterinary Hospital, Coimbatore, in charge of the Veterinary Assistant Surgeon there. Both the stallions were periodically inspected by the District Veterinary Officer. The District Board is contemplating the purchase of a third stallion.

78. *Visiting committees.*—The visiting committees attached to certain veterinary institutions continued to function fairly satisfactorily and rendered valuable help in regard to the working of the institutions concerned.

79. *Levy of fees in veterinary institutions.*—The period for which the revised scale of fees for admission and treatment in veterinary institutions introduced in 1928 having expired, Government issued orders during the year sanctioning the continuance of the scale. In addition to the Madras Veterinary College and 25 other important veterinary institutions in the mufussal in which the scale of fees was in force in the previous year, fees were introduced in two more veterinary institutions during the year, viz., Veterinary Dispensary, Conjeeveram, and Veterinary Hospital, Amalapuram.

X.—FINANCE.

80. According to the registers of this office, the expenditure of this department was Rs. 3,99,394-11-9 as compared with Rs. 10,27,667-9-11 of the previous year and the decrease in

expenditure was, apart from the economy observed wherever possible, mainly due to the manufacture of rinderpest serum locally at the serum institute opened during the year instead of obtaining the serum from Muktesar as was done in previous years. There was a decrease under each sub-head except under 'Direction.' The increase under 'Direction' is due to the debit of expenditure of the serum institute under this head.

The receipts of the department amounted to Rs. 45,292-5-1 as against Rs. 36,384-11-0 of the previous year. The increase is due to the receipts amounting to about Rs. 5,000 realized at the serum institute and about Rs. 4,000 on account of fees for the export of sheep and goats at Tuticorin.

XI.—FUTURE PROGRAMME OF WORK.

81. *Administration.*—At a Conference of the Departmental officers held in Madras at the beginning of the current year, it was resolved that in consideration of the indispensable necessity of lessening the area for having a more intimate knowledge of the conditions with reference to the veterinary needs of each Revenue district, the number of District Veterinary Officers be increased at the rate of two every year until each district has a District Veterinary Officer. As this suggestion is also in accordance with the recommendations of the Royal Commission on Agriculture, action on the lines indicated will be taken and definite proposals submitted to Government in the matter.

82. *Education.*—The new curriculum which was introduced in the Madras Veterinary College in 1930, is now in force in all the three classes. The question of the institution of a University Degree in Veterinary Science and the affiliation of the Madras Veterinary College to the Madras University is under consideration.

83. *Laboratory work and research.*—The several items of research work which have already been initiated in the Pathological and Parasitological sections of the laboratory attached to the Madras Veterinary College, will be continued. New items of research will also be undertaken as occasion arises. The routine experiments and examination of materials and preparation of vaccines, etc., will also be continued.

The general scheme for the appointment of Veterinary Investigation Officers in all the Provinces in India sanctioned by the Imperial Council of Agricultural Research has been given effect to in this Presidency during the current year. The Officer appointed to the post of Veterinary Investigation Officer, is now undergoing preliminary training in the Imperial Institute of Veterinary Research, Muktesar, and it is expected that he will be able to commence his investigations in October 1933.

84. *Serum Institute.*—The manufacture of anti-rinderpest serum and virus will be continued at the Serum Institute. The

question of increasing the output of the Institute with a view to meet possible demands for serum from outside the Presidency, e.g., native states and other provinces, is engaging consideration.

85. *Contagious and non-contagious diseases.*—The Provincial Veterinary Conference held in April 1933 and referred to above under 'Administration,' recommended that as a definite programme of the expansion and development of the department during the next five years, the annual recruitment be fixed at 12 Veterinary Assistant Surgeons for additional posts of touring billets and hospitals and dispensaries. Proposals for the opening of additional touring billets and new veterinary dispensaries during the next year based on the above recommendation are being worked out and will be submitted to Government as a Part II Scheme.

86. *Propaganda.*—The Provincial Veterinary Conference has also recommended that 12 additional Veterinary Assistant Surgeons should be appointed every year exclusively for propaganda work until a total of 50 is reached, so that two assistants may be available for each Revenue district. Detailed proposals in this direction will be submitted to Government as a Part II Scheme for the next year.

MADRAS,
20th July 1933.

T. J. HURLEY,
Acting Director of Veterinary Services.



KZ. 2111/1933

1933

STATEMENT SHOWING THE NUMBER OF DEATHS FROM CONTAGIOUS DISEASES AMONG ANIMALS DURING THE YEAR 1932-33.

Districts.	Equines				Bovines.							Others.						
	Glanders.	Anthrax.	Sutra.	Dourine.	Other contagious diseases.	Total.	Rinderpest.	Anthrax.	Hæmorrhagic septicæmia.	Blackquarter.	Foot-and-mouth.	Other contagious diseases.	Total.	Rabies.	Plague.	Hæmorrhagic septicæmia.	Anthrax.	Other contagious diseases.
1 Ganjam ..	..	..	..	..	1	1	212	89	317	272	289	1,732	2,911	..	..	..	..	..
2 Vizagapatam ..	..	..	..	..	..	..	9	35	65	49	69	250	367	..	..	..	..	..
3 Godavari, East ..	..	..	..	..	7	7	122	198	233	171	49	87	87	..	..	..	..	..
4 Godavari, West ..	..	..	..	..	..	..	498	412	134	41	3	126	1,214	..	..	..	..	..
5 Krishna ..	..	..	..	..	..	..	607	110	667	41	7	219	1,681	..	..	..	..	..
6 Guntur ..	..	1	..	..	1	1	904	81	613	368	74	204	1,367	..	..	..	..	..
7 Karnool ..	..	..	..	..	2	2	3,806	477	85	531	23	1	6,299	..	..	..	..	..
8 Bellary ..	..	..	..	..	..	..	1,052	165	219	151	73	232	1,522	..	..	..	..	..
9 Anantapur ..	..	..	..	..	..	..	89	90	36	1,009	15	223	1,492	..	..	..	..	..
10 Cuddapah ..	..	..	..	..	..	..	1,072	352	323	315	4	53	2,181	..	..	..	..	..
11 Nellore ..	..	..	..	..	..	..	2,478	620	622	570	84	139	4,563	..	..	..	..	..
12 Chingleput ..	..	..	..	..	..	..	429	138	650	140	22	186	1,576	..	..	..	..	..
13 South Arcot ..	..	..	..	..	..	..	40	37	158	55	11	77	328	..	..	..	..	..
14 North Arcot ..	..	..	..	..	17	17	124	74	371	651	52	261	1,553	..	..	..	..	..
15 Chittoor ..	..	..	..	..	..	..	204	106	141	2,565	187	72	3,273	..	..	..	..	..
16 Salem ..	..	..	..	..	1	1	..	52	84	972	89	540	1,737	..	..	..	..	..
17 Coimbatore ..	..	..	..	..	4	4	17	53	130	487	94	137	918	..	..	..	..	..
18 Trichuropoly ..	..	..	..	..	..	..	32	42	278	575	37	72	1,026	..	..	..	..	..
19 Tanjore ..	..	..	..	..	..	..	22	113	809	31	17	21	1,043	..	..	..	..	..
20 Madras ..	..	1	..	..	2	3	113	95	285	282	36	188	1,063	..	..	..	..	..
21 Ramnad ..	..	..	..	..	..	..	54	16	2	1	..	42	115	..	..	..	..	..
22 Tirunelvely ..	..	..	..	..	1	1	432	38	21	57	22	59	629	..	..	..	..	..
23 The Nilgiris ..	..	..	..	..	1	1	1	..	16	..	27	49	93	..	..	..	..	..
24 Malabar ..	..	..	..	..	..	..	18	134	120	..	4	89	365	..	..	..	..	..
25 South Kanara ..	..	..	..	..	..	..	319	39	63	..	27	23	474	..	..	..	..	..
26 Madras City ..	..	..	..	..	..	..	..	6	..	..	1	..	7	12	..	..	..	..
Total ..	..	2	..	..	39	41	12,735	3,605	6,464	9,351	1,316	6,655	40,196	12	..	..	..	12

Statement showing results of preventive inoculation during the year 1932-33.

Districts.	Name of disease against which inoculation was carried out.	Method of inoculation followed.	Number of outbreaks in which inoculation was undertaken.	Number of animals which died unino- culated in course of outbreak.			Number of animals inoculated.			Number of animals which died after inoculation.		
				Equines.	Bovines.	Others.	Equines.	Bovines.	Others.	Equines.	Bovines.	Others.
1 Ganjam ..	Rinderpest.	Serum simultaneous.	..	..	..	..	..	..	..	..	..	..
2 Vizagapatam ..			..	..	..	..	..	..	..	..	..	..
3 Godavari, East.			35	118	..	..	313	..	..	..	1	..
4 Godavari, West.			41	299	..	..	17,786	..	..	..	2	..
5 Kistna ..			38	578	..	..	6,479	..	..	..	..	..
6 Guntur ..			24	709	..	..	11,759	763	..	..	..	..
7 Kurnool ..			46	991	..	..	3,215	..	..	..	..	..
8 Bellary ..			65	954	..	..	5,606	..	..	..	8	..
9 Anantapur ..			3	51	..	..	13,324	..	..	..	8	..
10 Cuddapah ..			37	615	..	..	658	..	..	..	1	..
11 Nellore ..			100	1,281	..	..	3,891	..	..	..	16	..
12 Chingleput ..			25	399	19	..	20,820	..	..	..	43	..
13 South Arcot ..			..	..	..	..	4,786	761	..	..	5	3
14 North Arcot ..			3	40	..	..	430	..	..	..	..	..
15 Chittoor ..			10	193	..	..	214	..	..	..	..	..
16 Salem ..			..	..	..	..	1,647	..	..	..	..	..
17 Coimbatore ..			..	..	..	..	1,229	..	..	..	8	..
18 Trichinopoly ..			..	..	..	..	..	..	..	..	..	..
19 Tanjore ..			..	..	..	..	..	..	..	..	..	..
20 Madura ..			5	46	..	..	210	..	..	..	..	..
21 Ramnad ..			6	49	..	..	730	..	..	..	2	..
22 Tinnevelly ..			28	487	..	..	1,332	..	..	..	..	..
23 The Nilgiris ..			1	5	..	..	3,331	..	..	..	5	..
24 Malabar ..			1	3	..	..	87	..	..	..	..	..
25 South Kanara ..			16	159	..	..	60	..	..	..	..	..
26 Madras City ..			3	7	..	..	1,472	..	..	..	13	..
Total ..		487	..	7,030	19	..	99,591	1,524	..	114	3	
1 Ganjam ..	Serum alone method.	..	..	..	..	..	..	..	..	..	..	
2 Vizagapatam ..			..	..	..	..	..	..	..	..	..	
3 Godavari, East.			..	..	..	..	18	..	..	..	..	
4 Godavari, West.			..	..	..	..	3	..	..	..	..	
5 Kistna ..			..	..	..	..	..	..	..	..	..	
6 Guntur ..			..	..	..	..	..	..	..	..	..	
7 Kurnool ..			..	..	..	..	..	..	..	..	..	
8 Bellary ..			..	..	..	..	..	..	..	..	..	
9 Anantapur ..			..	..	..	..	..	..	..	..	..	
10 Cuddapah ..			..	..	..	..	..	..	..	..	..	
11 Nellore ..			..	..	..	..	..	..	..	..	..	
12 Chingleput ..			..	..	..	..	74	..	..	..	..	
13 South Arcot ..			..	..	..	..	..	..	..	..	..	
14 North Arcot ..			..	..	..	..	..	..	..	..	..	
15 Chittoor ..			..	..	..	..	..	..	..	..	..	
16 Salem ..			..	..	..	..	..	..	..	..	..	
17 Coimbatore ..			..	..	..	..	27	..	..	..	..	
18 Trichinopoly ..			..	..	..	..	..	..	..	..	..	
19 Tanjore ..			..	..	..	..	..	..	..	..	..	
20 Madura ..			..	..	..	..	..	..	..	..	..	
21 Ramnad ..			..	..	..	..	..	..	..	..	..	
22 Tinnevelly ..			2	1	..	..	18	..	..	..	..	

Statement showing results of preventive inoculation during the
year 1932-33—*cont.*

Districts.	Name of disease against which inoculation was carried out.	Method of inoculation followed.	Number of outbreaks in which inoculation was undertaken.	Number of animals which died uninoculated in course of outbreak.			Number of animals inoculated.			Number of animals which died after inoculation.		
				Equines.	Bovines.	Others.	Equines.	Bovines.	Others.	Equines.	Bovines.	Others.
23 The Nilgiris ..	Rinderpest.	Serum alone method.	..	..	..	..	..	..	..	..	..	..
24 Malabar ..			1	..	..	..	3	..	..	..	..	
25 South Kanara ..			2	..	..	..	7	..	..	..	..	
26 Madras City ..			..	..	..	..	1	..	..	..	..	
Total ..			5	..	1	..	151	..	..	..	..	
1 Ganjam ..	Hæmorrhagic septicæmia.	Serum alone method.	2	..	12	..	400	..	..	..	..	
2 Vizagapatam ..			2	..	19	..	277	..	..	..	..	
3 Godavari, East ..			12	..	136	..	2,899	..	..	..	..	
4 Godavari, West ..			3	..	76	..	1,244	..	..	..	..	
5 Kistna ..			7	..	131	..	1,973	..	..	..	..	
6 Guntur ..			..	..	..	..	..	..	..	..	..	
7 Kurnool ..			..	..	..	..	..	..	..	..	..	
8 Bellary ..			..	..	..	..	..	..	..	..	..	
9 Anantapur ..			..	..	..	..	..	..	..	..	..	
10 Cuddapah ..			12	..	172	..	1,941	..	..	..	..	
11 Nellore ..			31	..	424	..	7,807	..	..	23	..	
12 Chingleput ..			32	..	194	..	3,659	..	..	2	..	
13 South Arcot ..			..	..	..	..	..	..	..	..	..	
14 North Arcot ..			8	..	77	..	1,662	..	..	..	..	
15 Chittoor ..			2	..	41	..	265	..	..	..	..	
16 Salem ..			1	..	1	..	92	..	..	..	..	
17 Coimbatore ..			6	..	61	..	1,146	..	..	..	..	
18 Trichinopoly ..			5	..	49	..	820	..	..	4	..	
19 Tanjore ..			45	..	423	..	7,556	..	..	..	..	
20 Madura ..			15	..	543	..	2,742	..	..	45	..	
21 Ramnad ..	..	..	..	..	..	..	..	..	..			
22 Tinnevely ..	..	..	..	..	..	..	..	..	..			
23 The Nilgiris ..	2	..	12	..	16	..	..	..	..			
24 Malabar ..	1	..	14	..	160	..	..	..	..			
25 South Kanara ..	..	..	..	..	..	..	..	..	..			
26 Madras City ..	..	..	..	..	..	..	..	..	..			
Total ..	186	..	2,395	..	36,159	..	..	76	..			
1 Ganjam ..	Anthrax.	Serum alone method.	..	..	..	..	..	..	..	..	..	
2 Vizagapatam ..			..	..	..	..	..	..	..	..	..	
3 Godavari, East ..			5	..	23	..	789	..	..	..	..	
4 Godavari, West ..			1	..	30	..	100	..	..	..	..	
5 Kistna ..			..	..	..	..	..	..	..	..	..	
6 Guntur ..			..	..	..	..	..	..	..	..	..	
7 Kurnool ..			..	..	..	..	..	..	..	..	..	
8 Bellary ..			..	..	..	..	..	..	..	..	..	
9 Anantapur ..			2	..	600	..	..	1,655	..	..	8	
10 Cuddapah ..			..	..	..	..	..	..	..	..	..	
11 Nellore ..			..	..	..	..	..	..	..	..	..	
12 Chingleput ..			2	..	11	..	743	..	..	..	..	
13 South Arcot ..			2	..	12	..	292	19	..	..	..	
14 North Arcot ..			2	..	16	..	254	..	..	..	..	
15 Chittoor ..	1	..	..	..	35	4	..	..	..			

Statement showing results of preventive inoculation during the
year 1932-33—*cont.*

[illegible]

Statement showing results of preventive inoculation during the year 1932-33—cont.

Districts.	Name of disease against which inoculation was carried out.	Method of inoculation followed.	Number of outbreaks in which inoculation was undertaken.	Number of animals which died uninoculated in course of outbreak.			Number of animals inoculated.			Number of animals which died after inoculation.		
				Equines.	Bovines.	Others.	Equines.	Bovines.	Others.	Equines.	Bovines.	Others.
8 Bellary ..	Blackquarter.	Serum alone method.	..	..	..	..	..	..	..	..	..	..
9 Anantapur ..			11	..	76	..	2,620	..	..	..	..	..
10 Cuddapah ..			..	..	3	..	92	..	..	..	..	..
11 Nellore ..			1	..	6	..	57	..	..	..	..	..
12 Chingleput ..			..	..	..	..	..	..	..	..	..	..
13 South Arcot ..			..	..	..	..	..	..	..	..	..	..
14 North Arcot ..			6	..	90	..	1,524	..	..	1	..	..
15 Chittoor ..			5	..	87	..	1,082	..	..	..	..	..
16 Salem ..			6	..	45	..	807	..	..	3	..	..
17 Coimbatore ..			18	..	179	..	1,449	..	..	..	..	..
18 Trichinopoly ..			3	..	82	..	262	..	..	..	..	..
19 Tanjore ..			..	..	..	..	..	..	..	..	..	..
20 Madras ..			7	..	88	..	938	..	..	1	..	..
21 Ramnad ..			1	..	10	..	97	..	..	..	..	..
22 Tinnevely ..			1	..	6	..	74	..	..	..	..	..
23 The Nilgiris ..			..	..	..	..	..	..	..	..	..	..
24 Malabar ..			..	..	..	..	..	..	..	..	..	..
25 South Kanara ..			..	..	..	..	..	..	..	..	..	..
26 Madras City ..			..	..	..	..	..	..	..	..	..	..
Total ..			59	..	671	..	9,002	..	..	5	..	..
1 Ganjam ..	Fowl Cholera.	Vaccination.	..	..	..	..	..	..	..	..	..	..
2 Vizagapatam ..			..	..	..	..	..	..	..	..	..	..
3 Godavari, East.			6	..	..	..	..	81	..	..	..	..
4 Godavari, West.			..	..	..	..	..	..	..	..	..	..
5 Kistna ..			1	..	..	..	..	26	..	..	..	..
6 Guntur ..			..	..	..	..	..	..	..	..	..	..
7 Kurnool ..			..	..	..	..	..	..	..	..	..	..
8 Bellary ..			1	..	..	..	..	75	..	1	..	..
9 Anantapur ..			..	..	..	..	..	..	..	..	..	..
10 Cuddapah ..			..	..	..	..	..	..	..	..	..	..
11 Nellore ..			1	..	..	..	..	90	..	..	..	..
12 Chingleput ..			..	..	..	..	..	..	..	..	..	..
13 South Arcot ..			..	..	..	..	..	..	..	..	..	..
14 North Arcot ..			..	..	..	..	..	..	..	..	..	..
15 Chittoor ..			..	..	..	..	..	..	..	..	..	..
16 Salem ..			..	..	..	..	..	..	..	..	..	..
17 Coimbatore ..			1	..	..	..	..	26	..	..	..	..
18 Trichinopoly ..			..	..	..	..	..	..	..	..	..	..
19 Tanjore ..			..	..	..	..	..	..	..	..	..	..
20 Madras ..			..	..	..	..	..	..	..	..	..	..
21 Ramnad ..			..	..	..	..	..	..	..	..	..	..
22 Tinnevely ..			..	..	..	..	..	..	..	..	..	..
23 The Nilgiris ..			..	..	..	..	..	..	..	..	..	..
24 Malabar ..			1	..	..	..	..	49	..	..	..	..
25 South Kanara ..			..	..	..	..	..	..	..	..	..	..
26 Madras City ..			..	..	..	..	..	..	..	..	..	..
Total ..			11	..	..	..	..	350	..	..	1	..

* Fowls.

Statement showing results of preventive inoculation during the year 1932-33—cont.

Districts.	Name of disease against which inoculation was carried out.	Method of inoculation followed.	Number of outbreaks in which inoculation was undertaken.	Number of animals which died uninoculated in course of outbreak.			Number of animals inoculated.			Number of animals which died after inoculation.		
				Equines.	Bovines.	Others.	Equines.	Bovines.	Others.	Equines.	Bovines.	Others.
1 Ganjam ..	Fowl pest.	Vaccine.	..	..	..	..	..	..	..	..	..	..
2 Vizagapatam ..			..	..	..	..	..	..	..	..	..	..
3 Godavari, East.			..	..	..	..	..	..	..	..	..	..
4 Godavari, West.			..	..	..	..	..	..	..	..	..	..
5 Kistna ..			..	..	..	..	..	..	..	..	..	..
6 Guntur ..			..	..	..	..	..	..	..	..	..	..
7 Kurnool ..			..	..	..	..	..	..	..	..	..	..
8 Bellary ..			..	..	..	..	..	..	..	..	..	..
9 Anantapur ..			..	..	..	..	..	..	..	..	..	..
10 Cuddapah ..			..	..	..	..	..	..	..	..	..	..
11 Nellore ..			..	..	..	..	..	..	..	..	..	..
12 Chingleput ..			..	..	..	..	..	..	..	..	..	..
13 South Arcot ..			..	..	..	..	..	..	..	..	..	..
14 North Arcot ..			1	..	..	129	..	..	..	46	..	..
15 Chittoor ..			..	..	..	..	..	..	..	..	..	..
16 Salem ..			..	..	..	..	..	..	..	..	..	..
17 Coimbatore ..			..	..	..	..	..	..	..	..	..	..
18 Trichinopoly ..			1	..	..	..	..	..	..	16	..	..
19 Tanjore ..			1	..	..	..	..	..	..	80	..	..
20 Madras ..			1	..	..	..	..	..	..	23	..	..
21 Ramnad ..			..	..	..	..	..	..	..	..	..	..
22 Tinnevely ..			..	..	..	..	..	..	..	..	..	..
23 The Nilgiris ..			1	..	..	..	..	..	..	113	..	..
24 Malabar ..			2	..	..	..	..	..	..	290	..	..
25 South Kanara ..			..	..	..	..	..	..	..	..	..	..
26 Madras City ..			..	..	..	..	..	..	..	..	..	..
Total ..			7	..	..	129	..	..	..	667	..	..

APPENDIX III.

Statement showing the number of animals treated and castrated on tour during the year 1932-33.

Districts.	Number of Veterinary Assistant Surgeons employed.	Number of villages visited.	Castrations performed.				Treated for contagious diseases.				Treated for non-contagious diseases.				Total number of castrations performed and cases treated.	
			Equines.	Bovines.	Others.	Total.	Equines.	Bovines.	Others.	Total.	Equines.	Bovines.	Others.	Total.		
Vizagapatam Circle—																
Agency tracts ..	3	469	9	822	22	853	1	189	34	2,765	154	2,953	3,997			
Ganjam ..	5	705	1	1,558	19	1,578	..	627	27	3,598	105	3,730	6,941			
Vizagapatam ..	5	617	..	604	13	617	2	2,134	12	2,808	165	2,985	5,801			
Rajahmundry Circle—																
East Godavari (Agency) ..	2	215	3	712	8	723	..	45	12	1,002	78	1,092	1,881			
Do. (Plains) ..	4	511	4	1,573	35	1,612	..	3,642	44	2,121	119	2,284	7,432			
West Godavari ..	2	278	2	645	4	651	..	654	14	1,864	19	1,897	3,202			
Beavada Circle—																
Kistna ..	6	691	3	1,478	164	1,645	..	813	34	1,872	209	2,115	4,816			
Guntur ..	3	369	3	139	92	234	..	2,115	35	845	132	1,012	3,802			
Nellore Circle—																
Nellore ..	7	780	7	676	55	738	36	1,651	24	1,579	126	1,729	4,175			
Cuddayah ..	7	440	1	265	156	423	..	517	11	830	74	915	2,011			
Bellary Circle—																
Bellary ..	4	359	8	745	179	932	..	352	43	1,251	76	1,410	2,694			
Kurnool ..	4	372	7	331	29	367	..	865	52	1,427	66	1,545	2,787			
Madanapalle Circle—																
Chittoor ..	3	557	..	1,265	193	1,459	..	275	10	1,404	43	1,457	3,198			
Anantapur ..	4	450	14	645	1,058	1,717	..	47	40	1,416	140	1,596	3,515			
Vellore Circle—																
North Arcot ..	4	677	2	1,119	54	1,175	1	214	39	1,546	68	1,653	3,056			
Salem ..	4	676	11	865	314	1,191	1	893	59	1,840	130	2,029	4,519			
Coimbatore Circle—																
Coimbatore ..	5	581	4	913	710	1,627	..	2,054	20	1,181	194	1,395	5,107			
The Nilgiris ..	2	270	..	127	15	142	..	272	13	367	56	436	855			
Calicut Circle—																
Malabar ..	5	821	..	2,369	49	2,418	3	1,430	10	3,351	233	3,604	7,508			
South Kanara ..	4	431	..	1,330	30	1,410	..	1,424	6	2,219	177	2,402	5,255			

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Statement showing the number of animals treated and castrated on tour during the year 1932-33—cont.

Districts.	Number of Veterinary Assistant Surgeons employed.	Number of villages visited.	Castrations performed.				Treated for contagious diseases.				Treated for non-contagious diseases.				Total number of castrations performed and cases treated.	
			Equines.	Bovines.	Others.	Total.	Equines.	Bovines.	Others.	Total.	Equines.	Bovines.	Others.	Total.		
Madura Circle—																
Madura ..	3	451	..	288	60	348	1	516	56	572	18	1,695	111	1,724	2,644	
Ramanad ..	3	280	..	329	241	570	..	667	769	1,276	7	1,191	49	1,247	3,093	
Tinnevely ..	4	503	..	716	56	772	..	157	1	168	9	1,810	44	1,863	2,813	
Trichinopoly Circle—																
Trichinopoly ..	5	413	..	437	133	570	..	201	..	201	8	1,793	52	1,853	2,624	
Tanjore ..	5	530	1	1,120	137	1,258	..	325	8	333	13	1,624	61	1,698	3,289	
Madras Circle—																
South Arcot ..	5	447	1	1,927	83	2,011	..	279	32	311	12	1,552	93	1,657	3,979	
Chingleput ..	5	516	..	1,000	32	1,032	..	294	5	299	12	1,140	28	1,180	2,511	
Total ..	113	13,506	81	24,001	4,001	28,083	45	22,562	2,064	24,671	618	45,041	2,802	49,461	102,216	

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APPENDIX IV.

Statement showing the number of animals treated and castrated at veterinary hospitals and dispensaries during the year 1932-33.

Districts.	Number of Veterinary Institutions.		Number of Veterinary Assistants and Surgeons employed.		Number of in-patients treated during the year.				Number of out-patients treated during the year.				Grand total of in-and-out patients treated during the year.		Total number of cases supplied with medicine but not brought to institutions.		Castrations performed.				Receipts.		Expenditure.	
	Equines.	Bovines.	Others.	Total.	Equines.	Bovines.	Others.	Total.	Equines.	Bovines.	Others.	Total.	Equines.	Bovines.	Others.	Total.	Equines.	Bovines.	Others.	Total.	RS.	A. P.	RS.	A. P.
Vizagapatam Circle—	4	4	6	68	21	95	511	3,415	1,250	5,176	5,271	289	7	1,288	29	1,324	29	1,324	285	14	6	8,503	16	6
Guntur ..	5	5	2	33	52	87	228	3,994	2,307	6,525	6,616	425	8	297	12	317	12	317	496	15	0	11,507	4	5
Vizagapatam ..	9	9	71	804	49	724	1,090	9,991	4,523	15,604	16,328	3,078	9	1,751	26	1,786	26	1,786	1,061	8	3	21,757	12	3
Mahendragiri Circle—	3	3	11	177	11	199	316	3,513	1,108	5,237	5,436	405	2	591	-9	602	-9	602	270	4	0	7,072	4	3
East Godavari ..	7	7	3	183	5	191	534	8,238	2,901	11,672	11,863	188	1	586	16	602	16	602	636	2	6	16,534	7	1
West Godavari ..	5	5	4	140	12	156	254	4,565	1,857	6,691	6,847	278	2	286	53	310	53	310	446	2	0	11,108	11	5
Beavada Circle—	3	3	22	241	34	301	654	3,131	806	4,596	4,897	96	..	105	12	117	12	117	314	5	6	6,542	6	10
Kistna ..	4	4	6	153	..	159	134	4,223	1,058	5,420	5,579	69	2	683	299	984	299	984	127	15	3	7,182	6	0
Guntur ..	4	4	11	33	86	130	393	3,523	1,846	5,762	5,892	63	8	245	228	481	228	481	183	0	0	8,238	15	4
Nellore Circle—	4	4	9	58	9	76	649	4,179	1,980	6,804	6,980	316	6	216	312	534	312	534	63	11	6	8,320	6	10
Nellore ..	2	2	1	253	9	262	104	3,438	934	4,476	4,789	201	..	464	55	519	55	519	64	14	0	4,624	13	4
Cuddapah ..	3	3	10	279	21	310	265	2,328	1,080	3,673	3,983	62	..	223	208	431	208	431	306	11	0	6,714	8	10
Bellary ..	3	3	18	262	40	340	487	4,518	1,357	6,492	6,832	242	2	427	62	491	62	491	185	5	0	6,786	3	5
Kurnool ..	5	5	57	1,112	780	1,949	905	6,052	2,811	9,768	11,717	416	8	281	287	576	287	576	480	12	6	11,701	10	4
Madanapalle Circle—	9	11	133	1,672	140	1,945	686	11,131	6,771	17,584	19,533	2,360	12	331	265	608	265	608	873	5	0	20,318	3	5
Chittoor ..	2	2	34	47	220	301	196	982	3,119	4,297	4,598	264	2	40	42	84	42	84	2,189	13	0	8,033	9	0
Anantapur ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Vellore Circle—	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Vellore ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
North Arcot ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Salem ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Coimbatore Circle—	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Coimbatore ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
The Nilgiris ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

* Note.—The figures for this district includes the veterinary hospital attached to the Live Stock Research Station, Chintaldevi, which was closed on 16th July 1932.

Statement showing the number of animals treated and castrated at veterinary hospitals and dispensaries during the year 1932-33—cont.

Districts.	Number of veterinary institutions.	Number of Veterinary Assistants and Surgeons employed.	Number of in-patients treated during the year.				Number of out-patients treated during the year.				Grand total of in-and-out patients treated during the year.	Total number of cases supplied with medicine but not brought to institutions.	Castrations performed.			Receipts.	Expenditure.			
			Number of in-patients treated during the year.			Total.	Number of out-patients treated during the year.			Total.			Bovines.	Others.	Total.					
			Equines.	Bovines.	Others.		Equines.	Bovines.	Others.											
Calicut Circle—	4	4	25	214	79	318	187	3,353	5,429	8,968	9,287	186	..	354	55	409	889	1	10,087	12
Malabar ..	2	2	4	41	36	81	70	1,915	2,128	4,113	4,194	265	..	90	148	238	38	5	4,879	11
South Kanara ..	5	5	156	416	63	629	495	4,705	3,666	8,866	9,495	231	4	220	177	401	408	11	11,880	6
Madura Circle—	6	6	6	113	25	144	177	6,338	2,607	9,142	9,286	154	1	212	193	406	91	4	12,264	2
Madura ..	2	2	18	822	28	868	130	1,906	1,272	3,308	4,176	22	2	65	32	99	4,661	8	5,242	10
Tinnevely ..	4	4	15	80	39	134	247	6,007	2,255	8,509	8,643	460	3	325	171	499	578	6	10,499	8
Trichinopoly Circle—	7	8	7	268	36	311	264	10,179	3,571	14,014	14,325	538	1	468	344	813	420	11	16,100	11
Trichinopoly ..	4	4	20	259	61	340	246	5,086	1,041	6,373	6,713	358	1	356	8	365	284	6	9,303	6
Tanjore ..	5	8	26	85	191	302	467	7,539	3,085	11,091	11,393	290	..	263	82	345	1,466	4	12,851	10
Madras Circle—	2	5	149	117	433	699	204	1,852	6,493	8,549	9,248	..	4	5	18	27	4,660	0	5,524	15
South Arcot ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Chingleput ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Madras City ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	113	123	818	7,750	2,484	11,052	9,907	126,217	66,595	202,719	213,771	12,126	85	10,170	3,143	13,398	21,435	3	27,146	2
Private institutions—	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1. Vizianagram ..	1	1	71	183	25	279	301	1,018	406	1,725	2,004	318	9	53	..	62	..	..	2,775	9
2. Pithapuram ..	1	1	..	10	..	10	70	870	334	1,274	1,284	32	..	3	..	3	..	..	2,087	11
Total ..	2	2	71	193	25	289	371	1,888	740	2,994	3,288	380	9	56	..	65	..	..	4,863	5
Grand Total ..	115	125	889	7,943	2,509	11,341	10,278	123,105	67,335	217,059	217,059	12,506	94	10,226	3,143	13,463	21,435	7	27,630	7