

(1) East India wheat papers relating to  
the introduction into India of the system  
of grain-elevators in vogue in the  
United States of America and in Canada

X9(J38) 88. 20k73 <sup>1890-91</sup> C4

(2) Estimates of area and yield of  
principal crops in India 1924-25  
(Dept. of Commercial Intelligence and Statistics, India)  
(27th series)

X9(J) : 2. 25m

F5

(3) Annual Season and Crop Report  
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X9(J) . 231r F2

(4) Annual report of the Agricultural  
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J. 231r E9

(5) Annual Administration report  
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(6) Fifty-ninth annual report of the  
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(7) Sixtieth " " 1921-22

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(9) Annual report on the working  
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EAST INDIA WHEAT.

S2170

1

PAPERS

RELATING TO THE

INTRODUCTION INTO INDIA

OF THE

SYSTEM OF GRAIN-ELEVATORS

IN VOGUE IN THE UNITED STATES OF AMERICA AND IN CANADA.

1890—91.

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Presented to both Houses of Parliament by Command of Her Majesty.

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EAST INDIA WHEAT.

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INDIAN WHEAT TRADE.

P A P E R S

RELATING TO THE

INTRODUCTION INTO INDIA OF THE SYSTEM OF GRAIN ELEVATORS  
IN VOGUE IN THE UNITED STATES OF AMERICA  
AND IN CANADA.

1.

The GOVERNMENT of INDIA, to LOCAL GOVERNMENTS and ADMINISTRATIONS, Circular  
No. 122-127 C.—(Agri.), dated 6th January 1890.

I am directed to forward, for information and consideration, the accompanying copy of a despatch and of its enclosure, received from Her Majesty's Secretary of State for India, relating to the formation of a Company for the introduction of grain-elevators into India. Circular forwarding papers for opinion.

2. His Excellency the Governor General in Council will, in the first instance, be glad to be favoured with the views of \_\_\_\_\_ as to the encouragement which may properly be given to the Company, and I am to suggest that the opinions of the Directors of the Department of Land Records and Agriculture, the Chambers of Commerce and of other authorities, official or non-official, whom \_\_\_\_\_ may think it advisable to consult may be obtained and forwarded to the Government of India with as little delay as possible.

2.

GOVERNMENT of INDIA, Revenue and Agricultural Department, to the SECRETARY  
to the GOVERNMENT of INDIA, Public Works Department, No. 129 C.,  
dated 7th January 1890.

The undersigned is directed to forward, for information and consideration, a copy of a despatch,\* and enclosure, received from the Secretary of State, relating to the formation of a Company for the introduction of grain-elevators into India, and to say that this Department will be obliged if the Public Works Department will obtain the opinion of the Railway Companies mentioned in page 3 of Mr. Smith's letter.

3.

From LORD CROSS, to the GOVERNMENT of INDIA, No. 116, dated 28th November 1889.

I forward herewith a copy of a letter, and its enclosure, of the 17th September last, received from Mr. James G. Smith, of the firm of Messrs. Ritchie, Stewart & Co., Bombay, relating to the formation of a Company for the introduction of grain-elevators into India. It is unnecessary for me to dwell upon the very great importance of this project; and I shall be glad to be furnished with the views of your Excellency's Government on Mr. Smith's proposal, for State assistance to the Company, and on the merits of his letter generally. It is clearly impossible that the Government should assist the present project to the extent suggested in Mr. Smith's letter, but some aid might perhaps be given, and if your Government is disposed, as I presume it will be, to promote Mr. Smith's undertaking, I shall be ready to consider any recommendation which you may think fit to make. Forwards Mr. Smith's proposals for introduction of grain elevators.

2. I enclose, for your Excellency's perusal, a copy of the Board of Trade Journal for October 1889, in which, at page 309, will be found an account of the steps taken by the Russian Government to promote the erection of elevators along the lines of a railway leading to Odessa.

\* No. 116 (Revenue), dated 28th November 1891.



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# ANNUAL REPORT

OF THE

## DEPARTMENT OF AGRICULTURE

### FOR THE YEAR 1921-22.

The Department continued in charge of Mr. C. V. Sane B.Ag-  
Charge and personnel. (Bombay), B.Sc. (Kansas), M.Sc. (Wiscon.)

Mr. B. G. N Acharya was appointed to the post of the Agricultural Engineer, in August 1921, for a period of two years and promises to be a valuable asset, for the Departmental activities, in that direction.

The other important posts in the Department with their incumbents are shown in Appendix (1).

2. The notable changes in the Departmental working are (a) the discontinuance of the Entomological Branch, (b) the re-entry of the Dairy with an extensive programme in the Department and (c) the continuance of the Cotton officer.

Important changes in the Department.

On a persistent demand from the Amreli District, the Government have sanctioned an Agricultural Station being opened in Amreli and steps will be taken to give effect to this order as soon as practicable.

3. During the year under report, several important meetings took place. Of first importance is the meeting of the Board of Agriculture held at Pusa in February 1922. The meeting has a special significance because it is the last Board meeting planned on the old order of things. Now that Agriculture has become a transferred subject in the respective Provinces, the Board can no longer control the agricultural policies followed in different parts. That some co-ordinating control is badly needed to thread the various provincial enterprises so as to have a uniform fabric is recognised by all. Just how that is to be brought about in a manner acceptable to all, is the question. That such an institution was needed, was shown in the discussion on the subjects before this Board, notably in connection with the Cattle Board Scheme. There were eleven subjects before the Board for discussion, out of which eight were referred to Committees. I was appointed to work on two of these. Of the Subjects under discussion, from our point of view, three seemed to have special bearing on our work. These concerned the formation of Cattle Board with special reference to Dairying, Motor-tractor cultivation and Agricultural education. In the deliberations of the Board on these issues, it was brought out that the formation of a Cattle Board to guide the live-stock improvement on a uniform plan was essential, that the power-cultivation question must be approached and pushed on with great caution and that the Agricultural education question can best be dealt with by an Agricultural bias in the rural school curriculum as planned by the Punjab Educational Department.

Important meetings and conferences.

The second important meeting that I had the privilege of attending was the session of the Bombay Provincial Board of Agriculture in July 1921. It was as a result of the discussion at this Board that the new policy of Agricultural propaganda in the Bombay Presidency, as a joint effort of the Agriculture and Co-operative Departments, was framed. We are following this lead in our propaganda work as far as possible, but in a way we may say that we have gone a step further in the fact that our Departmental programme is the result of the association of leading Agriculturists of the Advisory Board and has to be approved by the Board. It may be necessary for us to go still further in the matter of enlisting the active co-operation of Agriculturists in moulding our activities.

The third event of importance in this category was a conference week in June 1922, when a meeting of the Agricultural staff of the Department was arranged, for discussion of the year's work and framing of the next season's programme. A two days' sitting of this was followed by the joint session of the Agricultural and Co-operative Departments for the joint programme of the District work. It was decided to approach the agriculturists through the medium of Co-operative Societies which can be depended upon for organized effort, and intelligent appreciation of agricultural improvements. The centres through which the agricultural programme is to be carried out were fixed by the District Officers of both the Departments and finally approved. It is decidedly a more hopeful medium for work and its results will be watched with interest. These conferences were followed by the six monthly meeting of the Agricultural Committee of the Advisory Board. The progress of the various questions in its sphere of influence was reported and the work done and planned placed before it for approval.

4. The series of tractor demonstrations, in co-operation with the firms handling this kind of machinery, easily formed the outstanding event of the year. These were arranged to take place at representative centres in each District, in the month of March and starting at Kosamba in the Navsari District, it was proposed to run through Baroda, Petlad, Mehsana and Amreli. Out of the several firms dealing in tractors, only Austin, Electrac, and Titan tractors came forward to join hands with us. The demonstration proved to be of great practical value, while its educative character is beyond doubt. The firms taking part in the demonstrations decided, however, to close their circuit at Mehsana resulting in acute disappointment of the Amreli farmers. It was, however, partly recompensed by sending the Departmental Fordson tractor there in early April and giving a successful two days' demonstration.

The second event of importance is the formation of an active cotton policy in collaboration with the Bombay Department of Agriculture. The line to follow was considerably facilitated by a joint discussion between Dr. Mann, the Director of Agriculture, Bombay Presidency, Mr. Bhimbhai Desai, Deputy Director of Agriculture, Gujarat, and H. E. the Amatya Sahab, when Dr. Mann and Mr. Desai paid a visit to Baroda by request at the time of their tour for gauging the scope of Agricultural improvements in Gujrat. As a result, we opened two cotton seed depots at Vyara and Chalthan in addition to existing facilities extended to us by the Bombay Department;

we have also a first hand pure seed area of about five hundred bighas for provision of our own seed for distribution and a special Cotton Officer to organize joint cotton sales and attend to general propoganda work with regard to cotton.

The third important event is the laying down of a definite policy in live-stock work. The earnestness of the feeling of Government in this matter is amply evidenced by the liberal support they have given the measure for making the present Dairy as an object lesson for such work even in a period of great financial stress. When the new Dairy with its modern stalls, Dairy plant and an attached farm will be completed, it will indeed be a show place of great educational value at the same time that the herd-building and business side as far as possible will be kept up in the fore-ground.

5. There are several other points requiring note during the year under report. The visit of Dr. Mann, the Director of Agriculture, Bombay Presidency, Mr. Bhimbhai Desai, Deputy Director of Agriculture, Gujrat, has been already alluded to. A number of our working staff were given facilities to study special subjects and deserves mention. Thus Mr. Gulabbhai Desai was deputed to Mysore for a special study of power-crushing and multiple-furnace Gul manufacture. Mr. Induvadani Desai had an extensive tour upto Dharwar in the South and Nagpur in the East for studying the cotton sales organizations and marketing methods. Mr. Acharya was permitted to visit the Dhrangadhra Tractor Farm as well as the tractor demonstration at Chharodi Cattle Farm.

Another matter deserving record concerns the Kotar lands that were given away at the instance of this Department with special concessions some years ago. There has been considerable confusion regarding the interpretation of these concessions until it became necessary to over-haul the whole question. A committee to consider these was appointed for making necessary recommendations and obtaining orders thereon. I was appointed to this Committee and worked as its senior member. The committee have submitted a unanimous report and a proposal embodying their recommendations for Government orders has been submitted recently. It is hoped this will set at rest the uneasy minds of the enterprising agriculturists who first put their hand in re-claiming these Kotar lands.

6. Out of Rs. 30,000 sanctioned for tractor advances, without interest, only Rs. 10,000 were effectively advanced, it being necessary to exercise considerable caution in making these allotments. Last year's advance resulted in the purchase of three tractors, one of these tractor owners found this help of great assistance and he is quite pleased with his machine. The other two have not found tractor farming so easy a matter, their principal difficulty being a competent tractor operator.

For installation of Oil Engine and pumps and other improved machinery a sum of Rs. 70,000 was sanctioned. Over 68,000 rupees out of these were granted, eleven applicants in the Baroda District being advanced Rs. 57,500. An advance of Rs. 6,000, without interest, was made in the Amreli District, so as to make it a popular measure by proving its undertaking and management a successful enterprise. The details of the advances are given in Appendix II.

7. The total expenditure for the Departmental activities for the year comes to Rs. 96,831-7-2. as against Rs. 1,03,450-3-6 during the previous year. The income figure for the same period are Rs. 23,791-12-11 and Rs. 20,927-6-7 respectively. The figure for the Dairy is only for the period, for which budget allotments are made from this Department, i. e. from 1st February to July 31st. The following table shows the figure for each section separately. Details will be found in Appendix III.

No.	Item.	Expenditure.	Receipts or contributions.	Remarks.
		Rs. a. p.	Rs. a. p.	
1	Administration including Agricultural Engineering.	25,302- 7- 4	1,331- 8- 7	
2	Farms ... ..	17,980- 9- 6	9,929-14- 7	
3	Dairy... ..	8,900- 8- 3	5,501- 8- 0	
4	Propaganda ... ..	6,889-11- 2	...	
5	Boring ... ..	12,087- 8- 5	1,250- 2- 2	
6	Veterinary Dispensaries ... ..	25,660-10- 6	5,778-11- 7	
	Total ..	96,831- 7- 2	23,791-12-11	

The figures for the Dairy for the whole year are Rs. 16,393-9-8 expenditure and Rs. 9,271-0-0 as income.

8. The monsoon started after a most anxious waiting on the eve of preparations for a year of draught. Having started, however, it kept at it in right earnest until its sudden and abrupt disappearance in the middle of September. It was in force—thus for a period of about two months. Having started late and disappeared suddenly after two months, the season may be said to have been partly dry in effect and this feature would have been more dominant but for the fact that for the time the monsoon was in force, its intensity was very great, giving a rain-fall in many cases over fifty per cent in excess of the average of the decade. This feature was perhaps more pronounced in the Navsari District, and to a less extent in Baroda; Kadi and Amreli Districts show no striking general deviation from the average. Owing to the concentration of the precipitation period, it showed everywhere the characteristics of a wet season even when the total rain-fall did not exceed the average. The season, on the whole, was quite satisfactory for crop production; good rice crops have been harvested after quite a long while, although the lateness did interfere in the area somewhat; kharif and rabi crops were good everywhere. Rain-fall statement for the Mahals will be found in Appendix (IV).

No serious pest or disease was reported except the appearance of Katras in parts of Kadi District where the pulse crops were specially damaged. Cotton out-turns and prices were both good and helped to keep up the farmers' spirits. There was some loss by rust to wheat but no damage from frost. Altogether the season may be classed as quite satisfactory for crop production.

9. The working of the Department may be divided into the following main sections :—  
Working of the Department.

- (A) Agricultural.
- (B) Agricultural Engineering.
- (C) Veterinary.

(A) AGRICULTURAL.

10. In the Agricultural section are included the following activities :—

- (a) Farms.
- (b) Dairy.
- (c) Propaganda.

(A) FARMS.

11. There are two farms for the present with the Department, one at Baroda and the other at Jagudan in the Kadi District. A third one for Amreli District at Amreli has been sanctioned but it is to be seen when it will be actually opened, for work.

(1) *Baroda Model Farm.*

12. This farm is located in the suburb of Baroda, about a mile from the Baroda Railway Station, on the Alembic Road. It represents more or less the goradu soil section of the Baroda District, but is of little use for cotton work as the bulk of the cotton crop of the District is grown on black soils. The gross area is about 84 acres, about 66 being under cultivation. The principal crops under cultivation are Bajri, cotton and cotton mixtures, groundnut, tobacco, castor, gawar, lucerne and other fodder crops. Details will be found in Appendix V.

13. The monsoon held off till almost the middle of July, although about half an inch was recorded in the third week of June. The current though late was strong in intensity and gave a total precipitation of over 44 inches in as many falls against an average rain-fall of 30 inches. This means an increase of about fifty per cent. over the average rain-fall figure.

As might be expected, such a late season means hurried sowing, often interrupted and interfered by the incessant wet weather, a luxuriant growth of weeds and increase in cost of production. Bajri perhaps did receive some set back but soon recovered. The cotton was perhaps the last to recover from the depressing wet weather, it being difficult to secure a proper stand in many cases, notably in mixtures. When it did recover, however, it did respond to the favourable moisture conditions yielding good crops.



With regard to crop-pests and diseases, there was the usual toll by white ants and Boll-worm in cotton. Katras had made their appearance but did not develop into a pest. Mites on chillies, wilt in cotton, ground-nut and tobacco, are other diseases, coming into special prominence. There was smut in Bajri but not of a serious nature. Arrangements were made for meeting the disease in collaboration with the Pusa institution next season.

14. The principal crop work is in connection with the spacing of cotton and Bajri. This year's results in cotton spacing point to wider spacing of cotton as the better practice. Last year, the five feet spacing gave the best outturn. This year's figures give an average of 1,110 for four feet spacing and 1,042 for five feet spacing, a considerable advance over closer planting. The best yield was from a four feet spacing plot yielding 1,228 to the acre, *i.e.*, over a Bhar per acre.

With regard to Bajri spacing, the results point in favour of closer drilling, as was the case last year. This year's outturn figures give the lowest yield from a two feet spacing. Those between 1' and 1½' ft. spacing are rather close, being on an average 1,316 lbs. and 1,444 lbs. respectively of grain to the acre. The maximum yield per acre is 1,596 *i.e.*, only 4 lbs. less for a forty maund return per acre.

In the manurial experiments with chillies the results were of the same order as last year, but the out-turn had considerably diminished owing to mite-attack. The increased yield due to artificial manures is not in proportion to the expense involved. Details will be found in Appendices VI to VIII.

15. Other important results were in connection with the irrigation of cotton. A cotton plot was started with irrigation in the month of May, and yielded 885 lbs. to the acre. Other noticeable results of the year's work. The crop had gone to considerable vegetative growth which accounts for the comparatively low return; but the main point in the test is early picking and this was noticed even in a wet year like the one under report. The cost of waterings until the monsoon set in, came to Rs. 13.

The possibility of a dry crop of lucerne is often temptingly pictured. An attempt was made in the year previous to one under report to grow it so, but owing to comparative dryness, the crop had to be irrigated. Then it was decided to continue it as a dry crop during the year under report by widening the space between rows and giving it a thorough intertillage. The crop gave a couple of cuttings, but lacked the vigorous growth associated with the lucerne crop and rapidly went to seed. The crop, therefore, appears to be too uncertain to be taken as dry crop in lieu of our other dependable staple crops.

Another result deserving mention here is in connection with the use of sodium Nitrate for onions. It was found that by the use of 285 lbs. of Sodim Nitrate and 120 lbs. Superphosphate per acre, the out-turn of onions, was increased by 7,779 lbs. per acre at a cost of Rs. 76 for the manures.

In the implement section no new implements were tried during the year. The three implements, Spring-tooth-harrow, Horse-hoe, and Discharrow continued to give satisfactory service.

16. The silo on the farm was filled as a trial. About 27,000 lbs. of chaffed material from maize, Sundhia and ground-nut creepers and lucerne were put in early October. The total cost of the silo-filling including material, labour, and other services comes to Rs. 242-5-8. The silo was opened in February and the percentage of useful silage came to about fifty per cent. All the farmstock were found to like and even relish. That they did not suffer in condition in the hot weather is largely due to this cooling succulent ration.

17. The following statement shows some of the out-turn figures of principal crops.  
Some out-turn figures.

No.	Name of crop.	Area in acres.	Average yield per acre.	Maximum for this year.
1	Bajri...	A.G. 6-5	Mds. Lbs. 24-17	Mds. Lbs. 39-36
2	Cotton ...	7-5	19-17	30-28
3	Castors ...	1-3	25- 4	35-38

18. The total expenditure of the farm including establishment and capital investment came to Rs. 13,639-7-0 against an income of Rs. 7,427-9-4. The actual expense on cultivation is calculated at Rs. 10,446-5-4, which includes permanent investment of Rs. 2,264-7-4. The depreciation of live and dead stock and land assessment totals upto Rs. 952-8-8, which is not included in cost of cultivation.

( 2 ) Jagudan Farm.

19. This farm is located near the Jagudan Railway Station about 7 miles from Mehsana in the Kadi District and represents the light sandy section of that part. The area of the Farm is about 25 bighas.

20. As in the rest of the State, the monsoon set in very late reaching almost the third week of July. The season was characterized by heavy down pours, that recorded on 29th July, being specially note-worthy when nearly 8 inches were measured. The total rain recorded was more than 41 inches in 48 days, giving an increase of more than fifty per cent. over the average. What is more remarkable is the fact that out of the 41 inches, more than half was recorded in the month of July since 19th of that month.

The concentration and continuance of the wet weather interfered with the Bajri crop from normal growth, but the Jawar crop was reported as extremely satisfactory everywhere. Among the insect pests the Katras were reported to have seriously damaged pulse crops and among diseases wheat rust drew particular notice.

21. The principal work on the farm concerns acclimatization trials of Pusa wheat and the best double cropping method. With regard to the latter, Bajri followed by wheat is the most economical practice for the farmer. This series, therefore, now discontinued, Bajri and wheat being adopted as the most suitable practice.

Summary of work done on the Farm.

With regard to Pusa wheat trials, this year's results bear out last year's indication that the Pusa and local type are perhaps on par regarding yield; at any rate there is not a striking advance in this respect for Pusa wheat. It is the uniformity and quality of the Pusa wheat that gives it the superiority which brings for the present from three to four annas per maund more. The average yield per bigha of Wajia local wheat works out at 885 lbs. against an average of lbs. 1,052 of Pusa. The maximum yield of Pusa came to lbs. 1,176 per bigha as against 1,080 of local. This obvious superiority of this type has created a demand for its trial and over a thousand pounds are expected to be issued for trial in farmers' fields next season.

After having given a good commercial crop to the previous year, the orange plantation seems to have received a set back. There is abundant fruiting, but few reach maturity as dropping off is considerable. The farm soil is not suited to cotton cultivation but the effect of watering even in a wet year was clearly noticed, yielding a crop of lbs. 736 per bigha, realizing at the current rate Rs. 156-6-0 at a cost of Rs. 64 for cultivation and watering. Both Tur and castor did well as they should after such a wet season.

22. The total expense of the farm including establishment and farm contingencies came to Rs. 4,341-2-6 against an income of Rs. 2,502-5-3. Expenditure on farm contingencies alone came to Rs. 3,267-7-3.

Expenditure.

#### (B) DAIRY.

23. The Dairy was again transferred to the control of this Department during the latter six months of the year under report, after having been placed in the Khangi in the earlier part.

Control.

24. The outlook of the present activities in this direction as contemplated are considerably broader, the effort being to combine in the institution herd building, sanitary handling and general education in this phase of the live-stock industry. The project when completed is estimated to cost quite a large outlay.

Object.

25. The total strength of the herd at the beginning of the year was 85, including young stock. At the end of the year it stood at 110, 54 being in the cow class and the rest in buffaloes. The strength of the milch stock at the end of the year stood at 23 cows and 30 buffaloes.

Strength of the herd and health of stock.

The increase was mostly by purchase on the occasion of the visit of H. R. H. the Prince of Wales when the Dairy was called upon to cater for the Royal Guest.

26. The Gir-cows had been the feature of the cow class in the Dairy for some time now. The new policy of building up Kathiawar breeds of cows and buffaloes does not make much change in the former class except the securing of foundation animals and weeding out the undesirable ones. With regard to the buffaloes we have to begin work right from the beginning. The Delhi buffaloes has long formed the main stay of the Palace Dairy herd and only last year a pedigree buffalo bull to head the herd was secured from Punjab for Rs. 450. It is now decided to concentrate attention on the Kathiawar breed, necessitating the dispersal of the former herd and securing typical animals of the Jafferabadi types. It will be understood that building of a pedigree herds is a matter of years but there is little doubt that sustained effort and intelligent weeding of the undesirable will show up in the end.

The total amount of milk produced during the year came to 87,142 pounds, 31,933 being from cows and 35,209 from buffaloes. The cost of production per pound of milk, including supervision charges, comes to just a little over 3 annas per lb.

27. The Dairy has been included in this Department from 1st February 1922. The change in the outlook and policy necessitated considerable alterations in the management, involving additional staff, additional stock, and, of course, additional expenditure. The expense for the six months the institution has spent from the Departmental budget is reported at Rs. 8,900-8-3 including supervision. The income for the same period is given at 5,501-8-0. For the first part of the year the Dairy was under the management of Khangī. The total expenditure and receipts during the year are placed at Rs. 16,393-9-8 and Rs. 9,271-0-0 respectively.

### (C) PROPAGANDA.

28. The propaganda work is carried on by three agencies: (1) Work by District staff, (2) Demonstration and Shows, (3) Publications.

#### (1) Work by District Staff.

29. In this division the work by the special Cotton Officer must be accorded the first place on account of the definite nature and importance of the question. Reference has already been made to the special facilities accorded to the Officer so that he may be in a better position to deal with the problem.

30. We have been depending so long entirely on the British Seed Depots for supply of improved cotton seed to our farmers. Last year about 7,500 acres were sown with this source of seed supply. It was thought possible, therefore, that if this Department has its own stores at convenient centres, the facility will be availed of by a larger number of cultivators. Two stores were opened with this idea at Chalthan and Vyara. Their experience will be watched with interest. We have also made a move in another direction in the matter of seed supply so as to secure our own stock. A concentrated area of about 300 acres has been supplied with first hand cotton seed from the British Department, the seed from the produce of which will be reserved

for distribution amongst our farmers. Such a compact block grown from first hand seed affords opportunities for organizing joint auction sale and efforts will be made to do so under the auspices of the Surat Cotton Committee. The area under improved cotton this year from all bonafide sources is expected to be about 15,000 acres, nearly double of what was in the previous year. In this connection one fact which is both encouraging and disconcerting at the same time, must be noted. Thus in the season of 1920-21, against an area of 12,850 bighas under bonafide improved seed there was even a larger area, 17,625 bighas under the so called farm seed.

The seed was sold as such by many dealers in cotton and with the dependence of the cultivators on the cotton dealers for disposal of their crop, it will be readily conceived what a latent delevelling force this might prove to be in building up this area to the really improved type.

31. Some effort has been made to meet the situation of cotton deterioration in South Gujarat. There is, however, an equally great out-cry for good seed for the Kahnab tract. The problem in this section is, however, even more difficult to meet than in the part south of the Nerbudda. The people are long accustomed to the cultivation of high ginning, short staple types and the climate is drier than further south. No definite type has been fixed for successful propaganda in this section, but the demand is so keen that it was thought necessary to make some move in the matter. About 60 lbs. of cotton seed was, therefore, obtained from the Broach Farm, which is expected eventually to replace the present admixture and was tried in the farmer's fields at Sarar through the enterprising members of the Co-operative Society there and the able organizer for that part. The result, however, as far as the experience of the growers goes, is discouraging. The produce was quoted in the market even at some discount over the prevailing rate for local growth. This can be accounted for, but what was unexpected is the impression that the crop was not equal in yield to local type. In order to obtain more definite information on the subject, it has been decided to secure a suitable area near Miyagam and test the results under more controlled conditions.

Difficulties in the way of successful introduction in Kahnab and further North.

Information was received of a private enterprise in the cultivation of the better stapled cotton in the tract North of Nerbudda. The experience of most of these has not been of an encouraging nature, the effort in Savli in this direction needing special mention as quite a large area was put under this type. Opinions regarding the produce per bigha are divided but the fact that the cotton was quoted at 10 to 15 rupees less per bhar by the local dealers has definitely put a stop to further ventures of that kind. When the matter was brought to the notice of the Department, every effort was made to find a suitable outlet, but the farmers had disposed off their produce before the matter came to a head.

With regard to the cotton situation in the Kadi District, we are merely maintaining a watchful interest pending definite work by the Bombay Department. The problem in Amreli appears to be more crystallized and it is hoped that the new farm sanctioned for that district will afford necessary opportunities for work in that connection.

32. There is an Agricultural Graduate attached to each District for help and advice and keeping up the propaganda work in their respective charge.

Work of the Agricultural Inspectors.

33. In Navsari District in addition to the cotton work already noted, the grafting of bor, plantation of agave and the use of artificials for irrigated crops may be specially mentioned. The use of ammonium sulphate for sugarcane in Vyara has now become an established practice, about 15,000 lbs. being purchased by the farmers at full market rates. Any help the sugarcane growers may need in this purchase will be readily given and a manure-purchase Society, if necessary, will be formed to meet the capital demand.

Navsari.

34. In Baroda, the chief activity pertains to the manuring of tobacco. The difficulty the tobacco growers have been experiencing in the sufficiency of the supply of this article is of long standing. A substitute for the deficiency as an economical practice can not be so readily fixed. Concentrated manures is the logical remedy to relieve the pressure and a beginning was made in this direction in the pre-war year. Since then the artificial manures themselves have been so high in price that no test to try them as substitutes was feasible. The sudden changes in tobacco prices contribute not a little to the indefiniteness of such tests as the same increase in outturn at a high rate of tobacco may result in a handsome net profit and with low prices ruling may actually dwindle into a deficit. The uncertainty of prices of artificial manures confuses the issue in the same manner. At a given price of fertilizers, the increase may bring in an additional income which may be turned into a loss, if the cost of fertilizers goes beyond a certain limit. These two varying factors make the work in this crop somewhat fitful.

Baroda.

The tests during the year under report were undertaken at Bhadrans, Dharmaj, Mehlay and Changa. In each of these places the area fixed for each trial was half a bigha and there were six of such plots at each place. The results in Dharmaj have been most encouraging, where the manure added had given increased production in every case, the highest increase over the adjacent check plot being 62%. The fertilizer used was 100 and 125 lbs. of Sodium Nitrate as a top-dressing per bigha, applied before first watering. The average increase per bigha for the six plots under test came to 380 lbs. at an average cost of Rs. 25. The cost of increase per maund of 40 lbs. works out at Rs. 2-10-0 and any price of tobacco over this becomes a net profit if the cost of manure remains the same. Taking even a very low rate of tobacco at Rs. 4 a maund, the use of the fertilizer as a top-dressing leaves a net profit of Rs. 19 per bigha or over Rs. 30 per acre.

The results in Changa and Mehlay do show an increase, but it is not so striking as in Dharmaj. The crop is harvested in this part comparatively early, necessitating an adjustment for the top-dressing sufficiently early to make full use of the application. The applications will, therefore, be suitably modified for this part in the next season. Details of results are given in Appendix IX.

35. Recently there has been a feeling that the waters of some well-known Charotar wells for their manurial ingredients have somewhat gone down in this respect. Samples of well-waters considered best for such purposes were sent

Quality of manurial wells.

for analysis. It is interesting to compare these figures with those reported by Dr. Leather more than a generation ago in 1895. Detail analyses are given in Appendix X.

Name of village.	Parts per 1,00,000 calculated as Potassium Nitrate.	
	1895.	1922.
Dharma j     ...     ...     ...     ...	363.7	250.80
Petlad     ...     ..     ...     ...	157.1	115.8
Mehlav     ...     ..     ...     ...	28.6	23.2

36. In the Kadi District the Inspector is also in charge of the Jøgudan Farm. The work during the year constituted chiefly of propaganda work for better farming. Lucerne seed was distributed so as to introduce it in the suitable section. His main work consisted in arranging for an extensive trial in farmers' fields of the Pusa wheat, which has given so promising results on the farm. He has succeeded in securing demand for about 1,000 lbs. in Visnagar, Mehsana and Sidhpur Talukas.

37. In the Amreli District propaganda work largely consisted of cotton trials and Pusa wheat tests. The B. T. plough is an accepted implement, only its cost is prohibitive in more extensive use. Similar types of Kirloskar ploughs will be tried next year. The trial of staple cotton at different places has not been of an encouraging character. The crop grows quite well to all appearance but the bolls begin to exude gum instead of forming normal growth. Trial of Wagad seed did not fare any better and the present situation is that people will have to grow mathio, no matter how much they like to replace it by a staple variety. It appears that few private tests of cotton will be undertaken now and the problem must await Departmental facilities for such work. Pusa wheat under irrigation had given promising out-turn and will be further distributed during the next season. The tractor demonstration in April was very well attended and there appears to be genuine demand for such a tackle in that part.

(2) *Demonstration.*

38. No agricultural demonstration or show was held during the year. A demonstration was arranged on the Baroda Farm for interested members of the Panchayat Conference and Advisory Board.

A cattle show was organized by the British Department at the Chharod cattle Farm along with a tractor exhibit. Workers in the Department in these directions were permitted to visit the show and the institution.

(3) *Publication.*

39. The annual Agricultural Calendar—Khedut Panchang—was published as usual and all the four thousand and odd copies were disposed off in a short time. The Calendar offered an opportune place for recording the results of the Census and more particularly those of the live-stock. The condition of live-stock was discussed at some length by me in a contribution in this issue and I find that it has been translated and published as an Appendix of the Census Report.

The Vernacular Quarterly—Kheti and Sakharya—was published as usual. The new scheme for this publication has not yet been decided upon pending readjustment of the working staff.

Reprints of useful leaflets of the Bombay Department were procured for distribution amongst cultivators.

## (B) AGRICULTURAL ENGINEERING.

40. Mr. B. G. N. Acharya was appointed to the post of the Agricultural Engineer in August 1921 and took charge on 20th of that month. He has been in entire charge of the tractor work in the Department, advice and inspection of oil-engine installations and supervision of boring operations in general, the Boring Overseer being in direct charge of the last item of work.

41. The Departmental tractor was sent for work in the Pattan, Petlad and Amreli Talukas and ploughed altogether 185 bighas and disced 43. The actual working cost for an acre of ploughing came to Rs. 7. As much more would have been to be added for operating services, depreciation and interest. No account has been taken in these calculations of accidents and consequent repairs and resulting enforced idleness. The business possibilities are thus yet hard to be definitely determined.

42. The working cost of disc-harrowing with the tractor including labour and depreciation, but not interest and repairs came to Rs 2-13-0 per acre, an acre being disced in about 41 minutes on an average. The time taken for ploughing is about three hours. Details are given in Appendix XI.

The tractor trials at various places in the State in co-operation with the firms have been already referred to. The experience we received in these tests, has made it necessary for us to push cautiously this interesting method of cultivation.

42. A brief survey has been undertaken during the year of the various installations of oil-engine and pump, noting the size and popular type, difficulties in operation and any general deductions that could be drawn from such a survey. The results it is intended, to be published in a bulletin form as soon as information is complete and the facts analysed.

*Boring.*

43. As is usually the case in a wet season, the number of applications for boring show considerable diminution. The number of wells dealt with



during the year was 45, out of which two were Panchayat wells in Mehsana Taluka. 34 out of these were successful, giving the percentage of successful wells as 75. The total addition of kos waters was nearly 80, the figure for the District being 2.7, 1.7, and 1 kos for Baroda, Kadi and Amreli respectively. Details will be found in Appendix XII and XIII.

44. Altogether 11 machines were in requisition 4 in Baroda and 3 in Kadi of the Cawnpore type, two Musto Patent and two Calyx-drills.

45. There was a demand for Rock Bore trials in Amreli and Navsari. Government sanctioned a couple of tests to be made at State expense for this purpose. The work in Navsari, owing to the machine being engaged elsewhere, could not be taken up. Out of three wells taken up at Amreli in the Amreli District, two gave an increase of one kos each, the third is yet incomplete.

46. We are experiencing considerable difficulty in securing competent workmen at reasonable salaries. We may have to train up our own men in bond or face the alternative of paying high wages.

#### *Veterinary.*

47. There were 13 Veterinary dispensaries with the Department by the close of the year. Five of these are entirely State financed and are located at Baroda, Navsari, Mehsana, Pattan and Amreli. The others are on a part contribution from the Local Boards : these are at Vyara, Kathor and Karchelia in Navsari District ; Dabhoi, Bhadran, Petlad and Sankheda in the Baroda District and at Vijapur in the Kadi District. Out of these Karchelia contributes a lump sum of Rs. 1,000, Sankheda and Vijapur pay  $\frac{2}{3}$  of the expenditure and the rest  $\frac{1}{3}$ . Owing to difficulty of securing charge Officers, Sankheda and Vijapur dispensaries have been open only for a few days.

48. The total number of cases treated during the year under report was 11,278 ; this works out at an average of 1,000 admissions during the year for the eleven dispensaries that were fully open. The number of admissions during the previous year were 8,990 giving an increase of over 2,200 cases or 200 per dispensary.

49. The classes of patients comprised of 6,965 cattle and 2,044 horses, 297 dogs and 1,472 miscellaneous types including Sheep, Goats, Camels, etc. The percentage of specially agricultural to non-agricultural stock works out at 60 to 40. Number of cases that were charged admission fee as coming from non-agriculturists was 4,189 or 37 per cent. of the total admission, leaving 63 % of the cases as coming from the agriculturists. The number of mofussil cases was 4,281 or 38 % of the total. The daily average attendance works out at 193, i. e. on an average a patient takes about 7 turns at the dispensary. In very few cases are in-door patients kept for facilities for doing so exist at very few places the number is thus almost negligible. The total number of operations total up to 1,415; 538 of which are of a major character.

50. Altogether 18 outbreaks were reported from the Districts, eight of foot and mouth diseases, eight of rinderpest and two of hemorrhagic septicæmia. None were of a virulent character and timely measures soon put them down. Inoculation of cattle

against rinderpest is not freely resorted to but it is encouraging that 120 at least were brought forward for inoculation.

51. The Veterinary Inspector's post had to be abolished owing to retrenchment but orders have since been received to revive it. In capable hands, the post will provide opportunities for considerable improvement in the working of the Dispensaries.

52. The stallion at Pattan is continuing to give good service. It is maintained by a contribution from the District Local Board. The service of the stallion is free of any charge. Little, however, is known regarding the progeny and to obviate this a deposit fee of Rs. 5 has been introduced, which is refunded, on the off-spring being brought to the dispensary for taking necessary note. 41 mares were served during the year, 27 out of which came from Pattan Taluka, 6 from Sidhpur Taluka, 4 from Chanasma Taluka and 4 from Harij Mahal.

53. The total expenditure for the Dispensaries came at Rs. 25,660-10-6. This works at about Rs. 2-4-0 per case for fresh admission during the year as against Rs. 2-12-6 during the previous one. The figure of Panchayat contribution came to Rs. 4,806, excluding that of Sankheda and Vijapur which, are still under Settlement.

BARODA,

C. V. SANE,

*Dated 16th November 1923.*

Director of Agriculture,

Baroda State.

**APPENDIX NO 1.**  
**Important Posts in the Department of Agriculture,**  
**in the year 1921-22.**

—————  
**HEAD OFFICE.**

Mr. C. U. Patel ... Deputy Director of Agriculture.  
 Mr. R. G. Patel, B.Ag. ... Senior Inspector.

**FARMS, SUPERINTENDENTS AND INSPECTORS.**

Mr. P. P. Patel, B.Ag. ... Amreli District Agricultural Inspector.  
 Mr. G. K. Desai, B.Ag. ... Navsari District Agricultural Inspector.  
 Mr. H. N. Shukla, B.Ag. ... Kadi District Agricultural Inspector  
 and Jagudan Model Farm Superintendent.  
 Mr. V. M. Kathavate, B.Ag. ... Baroda Model Farm Superintendent.  
 Mr. D. S. Medadkar, B.Ag. ... Baroda District Agricultural Inspector.  
 Mr. I. D. Desai, B.Ag. ... Cotton Officer.

**AGRICULTURAL ENGINEERING.**

Mr. H. C. Gandhi ... Boring Overseer.

**VETERINARY BRANCH.**

Mr. S. M. Vasavada, G.B.V.C. ... Baroda Veterinary Surgeon.  
 Mr. D. B. Pandya, G.B.V.C. ... Amreli Do,  
 Mr. H. V. Save, G.B.V.C. ... Pattan Do.  
 Mr. C. V. Mankodi ... Navsari Do.

**DAIRY.**

Mr. Shashikant K. Desai ... Superintendent for Cattle Breeding  
 and Dairy.

## APPENDIX NO. 41.

The Statement showing Tagavi advances made to the cultivators from a sum of Rs. 1,00,000 allotted to this Department in 1921-22 as referred to in para No. 6 of the Annual Report.

—:0:—

*For installation of Oil Engines and Pumps from Rs. 70,000.*

## BARODA DISTRICT.

	Rs.
1. Perbudhas Trikambhai Patel of Sevasi ...	6,000
2. Becharbhai Ranchedbhai Patel of Sarar ...	5,500
3. Haribhai Karabhai of Alindra ...	6,000
4. Thakore Kikabhai Gagabhai, Bamnoli ...	3,000
5. Wajjibhai Tulshibhai Sanjaya ...	5,000
6. Tulshibhai Lakhabhai, Changa ...	7,000
7. Narshibhai Nathabhai, Padgam ...	5,000
8. Becharbhai Muljibhai, Jalsan ...	5,000
9. Trikambhai Kashibhai, Jalsan ...	5,000
10. Jethalal Gangadas, Jahaj... ..	5,000
11. Nathabhai Narotam, Diver ...	5,000

## AMBALI DISTRICT.

12. Mohan Bhagvan, Jalia, without interest ...	6,000
13. Madhavrao Jenardan, Motifafdi ...	3,131-1-1
14. Khanderao Govind Gotikar, Dinod ...	1,500

*For Tractor from Rs. 30,000.*

Without interest.

1. Khanderao Govind Gotikar, Dinod ...	6,500
2. Chhotabhai Bhailabhai of Dharmaj ...	10,000
	16,500

Steps are being taken to recover this amount.

### APPENDIX NO. III.

The statement showing Expenditure and Receipts of the Department of Agriculture as referred to in para 7th  
of the Annual Report for the year 1921-22.

Serial No.	Branch.	Pay.	Travelling allowance.	Experiments and Demonstrations.	Other charges.	Total Expenditure.	Receipts.	For the year 1920-21.		Remarks.
								Expenditure.	Receipts.	
1	2	3	4	5	6	7	8	9	10	11
1	Head Office including Agri. Engineering	18,547- 5- 6	3,542- 3-11	2,441- 0- 7	771-13- 4	25,302- 7- 4	1,331- 8- 7	31,773- 8- 1	453- 4- 0	
2	Baroda Farm ...	3,193- 1- 8	107- 1-10	...	10,339- 3- 6	13,639- 7- 0	7,427- 9- 4	10,750- 9-11	7,224- 9- 3	
3	Jagudan Farm ...	1,013-11- 3	99-12- 0	...	3,227-11- 3	4,341- 2- 6	2,502- 5- 3	5,196- 7- 6	2,409- 1- 0	
4	Dairy ...	2,321-15- 4	...	...	6,578- 8-11	8,900- 8- 3	5,501- 8- 0	12,734-10-6	4,298- 3- 3	
5	Inspectors ...	4,770- 9- 4	1,329-12- 9	477- 7- 9	311-13- 4	6,889-11- 2	...	5,815- 0-10	...	
6	Boring ...	4,739-11-11	1,311-11- 3	...	6,046- 1- 3	12,097- 8- 5	1,250- 2- 2	13,847- 8- 1	1,739-15-10	
7	Veterinary Dispensary ...	15,394-14- 3	502- 2-11	...	9,763- 9- 4	25,660-10- 6	5,778-11- 7	23,332- 6- 7	4,802- 5- 5	
	Total ...	49,981- 5- 3	6,892-12- 8	2,918- 8- 4	37,038-12-11	96,831- 7- 2	23,791-12-11	1,03,450- 3- 6	20,927- 6- 9	

## APPENDIX NO. IV.

Statement showing Rainfall in different Talukas of the State  
in the year 1921-22.

District.	Taluka.	Rain-fall of 1921-22.	Normal of last ten years.	District.	Taluka.	Rain-fall of 1921- 22.	Normal of last ten years.	Remarks.
1	2	3	4	5	6	7	8	9
Baroda.	Baroda City.	45.14	35.94	Kadi.	Kadi.	39.09	28.99	
	Baroda.	44.59	31.99		Kalol.	34.89	27.72	
	Padra.	36.32	46.60		Dehgam.	46.85	29.24	
	Karjan.	54.98	40.20		Attarsumba.	43.78	31.06	
	Dabhoi.	50.03	42.24		Visnagar.	29.96	26.32	
	Sankheda.	58.01	40.71		Mehsana.	36.43	25.74	
	Tilakwada.	48.85	40.26		Kheralu.	32.72	23.70	
	Sinor.	47.36	26.47		Sidhpur.	23.62	23.76	
	Chandod.	32.37	32.80		Pattan.	27.64	21.42	
	Petlad.	35.31	32.56		Harij.	33.08	23.47	
	Bhadran.	37.35	32.72		Vijapur.	37.41	28.31	
	Savli.	44.13	39.38		Chanasma.	31.33	23.14	
	Vaghodia.	64.37						
	Navsari.	Navsari.	72.80		52.83	Amreli.	Amreli.	22.41
Gandevi.		87.17	59.09	Bhimkatta.	43.82		24.80	
Palsana.		64.81	52.35	Dhari.	21.53		20.85	
Mangrol.		47.12	38.92	Khambha.	14.33		19.58	
Kamrej.		51.32	43.13	Damnagar.	19.20		20.85	
Vyara.		71.22	56.62	Ratanpur.	24.39		23.13	
Songadh.		72.46	56.61	Kodinar.	26.34		29.06	
Mahuwa.		69.23	49.17	Okhamandal.	13.38		14.06	
				Beyt.	19.63		13.13	

## APPENDIX NO. V.

The statement showing the value and cost of production of the crop grown on the Baroda Model Farm as referred to in para 12th of the Annual Report for the year 1921-22.

Serial No.	Name of Crop.	Area.		Yield.		Value of the Produce.	Remarks.
		A.	G.	Grain.	Fodder.		
1	2	3	4	5	6	7	8
				Mds. lbs.	Mds. lbs.	Rs. as. ps'	
1	Bajri ...	6	5	174-12	2,678-0	723-4-1	
2	Bajri Mix. ...	3	30	69-33	380-43	380-4-3	
	Gawar ...			1-0			
	Mag ...			9-34			
	Math ...			5-3			
	Tur ...			0-4			
3	Cotton ...	6	5	124-37	...	968-8-4	
4	Cotton Mix. ...	5	20	41-33	...	426-12-3	
	Til ...			20-13			
	Tur ...			1-10			
5	Sundhia ...	16	7	...*	...	1,500-14-0	
6	Ground-nut ...	2	...	28-19	75-30	122-9-6	
7	Kodra mix. ...	3	...	97-8	120-20	238-4-6	
	Til ...			3-24			
	Gawar ...			1-35			
	Tur ...			28-35			
8	Tobacco ...	1	20	...*	...	87-0-0	
9	Chillies ...	1	5	90-6	...	112-5-0	
10	Lucerne ...	1	30	3-25	649-23	565-3-11	
11	Castor ...	2	28	38-4	...	119-14-4	
12	Bavto ...	3	30	31-12	46-0	76-7-8	
	Castor ...			7-17			
13	Safflower ...	1	...	8-38	...	27-1-8	
14	Maize ...	2	24	269-15	...	74-3-8	
15	Vegetables ...	3	...	...*	...	414-5-4	
16	Guavas ...	3	20	...*	...	830-10-9	
17	Oranges ...	...	20	...*	...	1-14-0	
18	Miscellaneous ...	1	10	...*	...	35-0-3	

\* These crops have been sold standing.

## APPENDICES NO. VI, VII, VIII.

## BARODA FARM.

## SPACING TRIALS.

*Cotton.*

Plot No.	For the year 1921-22.		Plot No.	For the year 1920-21.		Remarks.	
	Spacing.	Yield per Acre. lbs.		Spacing.	Yield per Acre in lbs.		
1	2	3	4	5	6	7	
47	2 ft.	960	55	2 ft.	580	} These cottons were irrigated.	
48	3 ft.	928	56	3 ft.	492		
49	4 ft.	1,052	57	4 ft.	484		
50	5 ft.	1,192	58	5 ft.	632		
51	4 ft.	1,052	59	4 ft.	..		
52	4 ft.	1,228	60	4 ft.	..		
53	5 ft.	1,044	61	5 ft.	..		
54	5 ft.	891	62	5 ft.	..		
							This plot is low lying and so waterlogged.

*Bajri.*

55	1 ft.	1,276	47	1 ft.	1,036
56	1½ ft.	1,352	48	1½ ft.	960
57	2 ft.	1,236	49	2 ft.	864
58	1 ft.	1,586	50	1 ft.	824
59	1 ft.	1,496	51	1 ft.	961
60	1½ ft.	1,536	52	1½ ft.	824
61	2 ft.	1,384	53	2 ft.	620
62	1 ft.	896	54	1 ft.	672

*Irrigated Cotton.*

Plot No.	Yield per Acre.	Value of Produce.	Cost of Production	Profit.	Remarks.
9-10	Lbs. 885	Rs. as. p. 174-5-0	Rs. as. p. 83-13-7	Rs. as. p. 90-7-5	The cost of five irrigations in May-June was Rs. 13-1-3.



APPENDIX NO. IX.

Statement showing the result of manurial experiments on Tobacco in Dharmaj in the year 1921-22.

Serial No.	Name of the person.	Area number			Treat-ment actually given to the plot.	Out-turn.				Remarks.
		Field Survey number.	of com-parison.	of plants.		Treated.	Untreat-ed.	Excess.	Percen-tage.	
1	2	3	4	5	6	7	8	9	10	11
1	Desaibhai Dayabhai.	2,405	½	3,420	62½	689	425	264	62	The rate of manure per maund of 40 lbs. was Rs. 8, while the prevailing rate of Tobacco at Dharmaj and Changa was Rs. 10 and 8 per maund respectively during the year.
2	Mathurbhai Dadabhai.	46	½	3,264	62½	687	541	236	52	
3	Vaghjibhai Bhajibhai.	113	½	3,584	62½	472	357	115	32	
4	Govindbhai Dayabhai.	2,405	½	3,375	50	687	425	262	61	
5	Pagibhai Amtha.	113	½	3,584	50	479	446	33	7	
6	Shankar Jesang.	47	½	3,280	50	687	451	236	52	

Statement showing the results of manurial experiments on Tobacco in Changa in the year 1921-22.

Serial No.	Name of the person,	Field survey number.	Area of comparison.	Number of plants.	Treatment, actually given to the plot.	Out-turn.				Remarks.
						Treated.	Untreated.	Increase.	Percentage.	
1	2	3	4	5	6	7	8	9	10	11
1	Tulshibhai Lakhabhai.	2,116	$\frac{1}{2}$	3,960	50	480	400	80	20	The rate of manuré per maund of 40 lbs was Rs. 8, while the prevailing rate of Tobacco at Dharmaj and Changa was Rs. 10 and 8 per maund respectively during the year.
2	Maganbhai Motibhai.	2,117	$\frac{1}{2}$	4,005	50	290	260	30	„	
3	Nathabhai Somabhai.	2,130	$\frac{1}{2}$	3,960	50	250	230	20	8	
4	Chunibhai Hathibhai.	2,116	$\frac{1}{2}$	3,900	37 $\frac{1}{2}$	430	370	60	16	
5	Nathabhai Mathurbhai.	2,125-1	$\frac{1}{2}$	3,960	37 $\frac{1}{2}$	330	310	20	6	
6	Nathabhai Mathurbhai Bhaijeebhai.	2,112	$\frac{1}{2}$	3,822	37 $\frac{1}{2}$	250	230	20	8	

APPENDIX NO. X-A.

Analysis of well-waters well-known for tobacco crop in Petlad Taluka in the year 1922.

Name of the village.	1st class manurial value.			Samples of medium value.				Waters ordinary used.			Unfit for irrigation.
	Dharmaj.	Mehlav.	Petlad.	Dharmaj.	Mehlav.	Mehlav.	Petlad.	Dharmaj.	Mehlav.	Petlad.	Bhadran.
Name of the well.	Kharo.	Gotoroo.	Mira.	Ghoga-tia.	Dholo-kuvo.	Parotwa-lo.	Joshino.	Nagar-das.	Bhatwa-lo.	Fathepu-rano.	Chopa-dio.
Total Salts containing ...	1010 00	98 00	284 00	466 00	80 00	110 00	74 00	100 00	156 00	68 00	222 00
Calcium Carbonate ..	20 00	18 00	38 07	12 00	14 00	4 00	20 00	8 00	16 00	20 00	16 00
„ Sulphate ...	...	...	7 82	...	...	...	...	...	...	...	...
Magnesium Carbonate ...	69 01	25 29	...	49 73	27 39	13 70	15 16	13 60	31 32	13 28	30 40
„ Sulphate ...	6 69	5 12	34 12	...	...	...	...	...	11 27	...	...
„ Chloride ...	...	...	30 10	...	...	...	...	...	...	...	...
Sodium Carbonate...	...	...	...	8 48	...	...	...	1 06	...	...	...
„ Bicarbonate ...	...	...	...	12 68	2 94	50 20	1 73	28 50	...	...	77 28
„ Sulphate ...	137 78	...	...	71 98	6 10	6 10	3 66	4 88	...	7 32	4 88
„ Chloride ...	577 50	23 10	69 30	247 17	20 79	18 48	19 47	34 65	73 92	13 86	27 72
Potassium Nitrate ..	28 35	7 09	21 26	9 59	5 82	...	...	...	4 98	...	...
Sodium Nitrate ...	147 38	1 39	78 84	43 75	14 54	...	...	...	12 12	...	...

7 D. A.

APPENDIX NO. X-B.

Analysis of well-waters well-known for tobacco in Petlad Taluka in the year 1895 (This is taken from Agricultural Ledger 1895 No. 14, P. 2).

So many parts per 1,00,000.

Description.	Lime Ca. O.	Magne- sio Mg. O.	Potash K <sub>2</sub> O.	Soda Na <sub>2</sub> O.	Sulphuric Acid S <sub>2</sub> O	Chlorine Cl.	Nitric Acid N <sub>2</sub> O <sub>5</sub> .	Magne- sium Sulphate Mg. S. O <sub>4</sub>	Sodium Chloride Na Cl	Pota- sium Nitrate K. N O.	Remarks.
148											
95 140	Mehelav ... ..	2.1	15.6	29.0	22.7	7.5	17.3	15.3	11.2	28.5	28.5
95 151	Sunav ... ..	3.1	13.2	43.2	54.8	13.4	32.2	24.7	20.1	53.0	46.2
95 152	Petlad "Salty" ... ..	30.7	35.7	Nil	110.4	37.1	93.0	84.1	55.6	153.0	157.1
95 153	Petlad "Sweet" ... ..	9.2	7.2	—7.4—	10	3.7	1.1	1.5	6.1	2.1	
95 164	Darmaj S <sub>1</sub> ... ..	9.2	42.4	Nil.	626.4	66.3	499.7	194.8	99.4	822.1	363.7
95 156	Darmaj S <sub>2</sub> ... ..	3.6	20.4	Nil.	246.3	30.2	161.2	48.1	45.3	265.2	89.9
95 157	Ditto ... ..	4.7	11.4	33.8	32.0	7.5	29.7	9.4	11.2	48.9	17.6
95 161	Bhadran ... ..	2.2	5.6	—26.8—		7	4.9	2.5	1.0	8.1	4.6
95 164	Baroda ... ..	7.6	8.0	—17.0—		Nil	4.9	.9	Nil.	8.2	1.7
95 165	Miyagam "Salty" ... ..	21.9	20.9	109.8	49.5	33.9	24.3	27.6	50.9	133.7	51.6
95	Miyagam "Sweet" ... ..	9.6	16.4	—5.0—		3.1	3.7	1.5	4.6	6.1	2.0

## APPENDIX NO. XI.

(A).

*Tractor test on the 8th, 9th and the 10th November 1921.*

No. of hours worked ...	...	...	...	...	8.
Area ploughed in acres	...	...	...	...	2.6.
Kerosine consumed, in gallons	...	...	...	...	14.25
Petrol ...	...	...	...	...	5
Lubricants "B" oil, Gallons	...	...	...	...	5

---

Time taken to plough one acre ...	...	...	...	...	3 hours.
Kerosine consumption per acre ...	...	...	...	...	5.5 gallons.

*Cost per acre of land ploughed.*

Kerosine ...	...	...	...	...	Rs. s. p. 5- 2- 6.
Petrol ...	...	...	...	...	0- 8- 0.
Lubricants...	...	...	...	...	1- 4- 0.
Total...					6-14- 6.

(B).

*One Acre Test.*

Baroda Model Farm 13-11-1921.

No. of hours worked ...	...	...	...	...	3.
Area ploughed, in acres	...	...	...	...	1.
Kerosine consumed, in Gallons	...	...	...	...	4.5
Petrol ...	...	...	...	...	0.125.
"B" Oil ...	...	...	...	...	0.25.

---

Time taken to plough one acre ....	...	...	...	...	3 hours.
Kerosine consumption, per acre ...	...	...	...	...	4.5 Gallons.

Kerosine ...	...	...	...	...	Rs. s. p. 4- 8- 0.
Petrol ...	...	...	...	...	0- 6- 0.
Lubricants	...	...	...	...	1- 4- 0.
Total =					6- 2- 0.

APPENDIX No. XI.—*Concl'd.**Tractor Disc harrowing.*

Area in acres disc harrowed	..	..	..	..	24-38 acres.
Time taken ..	..	..	..	..	16-35 hours.
Kerosine consumption	..	..	..	..	23·96 Gallons.
<hr/>					
Time per acre ..	..	..	..	..	41 minutes.
<i>Cost per acre.</i>					
					Rs. a. p.
Kerosine	..	..	..	..	1-10- 0.
Petrol	..	..	..	..	0- 2- 0.
Lubricants	..	..	..	..	0- 6- 0.
Labour	..	..	..	..	0- 3- 0.
Depreciation @ 1-8-0 per hour	..	..	..	..	1- 8- 0.
					<hr/>
Total..					2-13- 0.

This comes to Rs. 2-13-0 excluding wages of the operator and the charges of the spare parts.

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**APPENDIX NO. XII.**

*Statement showing the number of wells Bored in details  
in the year 1921-22.*

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**S D. A.**

Statement showing the number of wells Bored in details in the year 1921-22.

Serial No.	Name of well owner.	Village.	Taluka.	Diameter of Bore.	Depth of Boring.	Water before Boring.		Number of working days	Dept. charges.	Labour charges.	Total cost of of Bore hole.	Cost per foot.	Results.	Remarks.
<b>BARODA DISTRICT.</b>														
<i>With Musto Patent Set.</i>														
1	Jethabhai Raijibhai.	Mehelav.	Petlad.	4"	121'	6	10	32	Rs. as. p. 436-14-1	Rs. as. p. 200-0-0	Rs. as. p. 636-14-1	Rs. as. p. 5-4-3	Successful.	
2	Tulsibhai Lakhabhai.	Changa.	Do.	4"	96'	8	2	14	36-5-3	50-0-0	86-5-3	...	Do.	* Cleaned the hole and took pipe 4 ft. ahead.
3	Do. ...	Do.	Do.	4"	112'	10	4	31	408-8-0	250-0-0	658-8-0	5-14-1	Do.	
<i>With Calyx Drills.</i>														
4	Fulabhai Dajibhai ...	Ranoli.	Savli.	2½"	136'	...	...	86	76-8-0	109-8-0	186-0-0	...	Unsuccessful.	Hole could not be cleaned,
5	Chhotabhai Bhailal-bhai ...	Baroda.	Baroda.	4"	84'	1	2	20	384-8-0	110-8-0	495-0-0	5-14-3	Successful.	
6	Ambalal Vishwanath.	Dumad.	Do.	3"	69½'	½	1	27	182-11-5	125-0-0	307-11-5	4-6-10	Do,	
7	Nagjibhai Perbhudas.	Dabhoi.	Dabhoi.	3"	146'	½	...	23	161-0-0	450-8-0	611-8-0	4-3-0	Unsuccessful.	
8	Ambalal Vishanath.	Dumad.	Baroda.	3"	66'	...	...	18	71-14-5	95-0-0	166-14-5	...	Do.	



9	Madhavbhai Manorbhai ... ..	Virod.	Baroda.	3"	53'	1	4	27	138-14-5	101-0-0	239-14-5	4-8-3	Successful.
10	Do. ... ..	Do.	Do.	3"	53'	5	4	8	124-10-5	25-0-0	149-10-5	2-13-0	Do.
	<i>With Cawnpure Sets.</i>												
11	Shankerbhai Govindjee ... ..	Petlad.	Petlad.	2½"	150'	1	...	36	102-8-0	180-0-0	282-8-0	...	Unsuccessful.
12	Parasaram Balwant.	Baroda.	Baroda.	2½"	23'	1	2	20	21-2-0	50-0-0	71-2-0	3-1-6	Successful.
13	Bhikhabhai Rambhai	Sojitra.	Petlad.	2½"	60'	2	5	18	119-12-10	75-0-0	194-12-10	3-3-11	Do.
14	Shivabhai Haribhai	Gada.	Do.	2½"	111'	½	3	27	204-0-0	60-8-0	264-8-0	2-6-0	Do.
15	Ranchodbhai Gokalbhai ... ..	Tajpura.	Padra.	2½"	7'	½	2½	13	17-12-0	24-8-0	42-4-0	6-0-7	Do.
16	Ramdas Jeejeebhai.	Malataj.	Petlad.	2½"	33'	½	2	9	75-4-7	32-0-0	107-4-7	3-4-0	Do.
17	Ranchoddas Gokalbhai... ..	Tajpura.	Padra.	2½"	8'	3	2½	3	10-4-0	9-0-0	19-4-0	2-6-6	Do.
18	Haribhai Kala ... ..	Do.	Do.	2½"	21'	½	3	15	21-14-10	35-8-0	60-6-10	2-14-0	Do.
19	Shivabhai Ramdas...	Malataj.	Petlad.	2½"	29'	½	3	5	60-4-10	25-8-0	85-12-10	2-9-10	Do.
20	Lallubhai Dhoribhai.	Do.	Do.	2½"	15'	½	1	26	55-14-10	50-8-0	106-6-10	7-1-6	Do.
21	Devising Bhagawanji	Deva.	Petlad.	3"	80½'	½	2	32	201-3-5	78-0-0	279-3-5	3-7-6	Do.
22	Bhailal Dajibhai ... ..	Jalsan.	Bhadran	3"	18'	...	...	37	...	...	...	...	Unsuccessful (abandoned).

APPENDIX No. XII.—Continued.

Serial No.	Name of well and owners.	Village.	Taluka.	Diameter of Bore.	Depth of Boring.	Water before Boring.		Water after Boring.	Number of working days.	Dept. charges.	Labour charges.	Total cost of Bore hole.	Cost per foot.	Results.	Remarks.
23	Bhavsanjeo Sadubhai	Deva.	Petlad.	3"	32'	1	2	31	Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.	5-14-8	Successful.	
24	Mayaram Keshavram ... ..	Karkhadi.	Padra.	2½"	126'	1	...	14	14-4-0	106-0-0	120-4-0	...	...	Unsuccessful (abandoned).	
25	Bhailal Mohanlal ...	Padra.	Do.	2½"	31½'	1	3	9	81-5-4	50-8-0	131-13-4	4-3-5	5	Successful.	
26	Devising Bhagvanji	Deva.	Petlad.	3"	36'	2½	1	5	94-2-5	30-0-0	224-2-5	3-7-2	2	Do.	
27	Yeshavantrao Balvantrao ... ..	Padra.	Padra	2½"	41'	½	1	25	94-2-10	75-8-0	169-10-10	4-2-3	3	Do.	
28	Shri Raghoprasad R.	Sherki.	Baroda.	2½"	51½'	½	1	9	124-7-4	16-0-0	140-7-4	2-3-6	6	Do.	
29	Narayan Shridhar ... <i>Kadi District with Cawnpore Sels</i>	Karali.	Do.	2½"	18'	½	1½	9	44-12-10	30-8-0	75-4-10	4-2-11	11	Do.	
30	Amthabhai Jorabhai	Kanpur.	Attarsumba.	2½"	33½'	¼	2	27	92-4-4	53-12-0	146-0-4	4-5-3	3	Do.	
31	Pilodra Public Well	Pilodra.	Mehsana	2½"	93½'	¼	1	45	341-13-9	508-12-0	850-9-9	9-2-0	0	Do.	

32	Bechar Hedu ... ..	Dela.	Mehsana.	2½"	96'	½	1	42	201- 8-10	196- 6- 0	397-14-10	4- 2- 3	Successful.
33	Dala Jiva ... ..	Savala.	Visnagar	2½"	63'-7"	½	2	22	131- 6- 0	94- 0- 0	225- 6- 0	3- 9- 0	Do.
34	Bechar Baji... ..	Kamana.	Do.	2½"	71'-9"	½	2	31	152- 8- 4	97- 2- 0	249-10- 4	3- 8- 0	Do.
35	Pirkhan Savaikhan	Savala.	Do.	2½"	60'-5"	½	...	21	125- 5- 8	114- 0- 0	239- 5- 8	4- 0- 0	Do.
36	Jorabhai Venibhai...	Satusana	Do.	2½"	88'	½	...	33	28-14- 0	141-14- 0	170-12- 0	1-14- 3	Unsuccessful.
37	Raichand Javer ...	Kansa	Do.	2½"	82'	½	...	25	15-10- 0	123- 6- 0	159- 0- 0	1-11- 1	Do.
38	Amichand Ganesh ...	Kamana	Do.	2½"	88'-8"	½	1	24	173-14- 2	118- 8- 0	292- 6- 2	3- 4-10	Successful.
39	Jivankhan Mohabat- khan ... ..	Savala.	Do.	2½"	77'	½	1	23	154- 0-10	94- 0- 0	248- 0-10	3- 3- 7	Do.
40	Moti Meghraj ...	Hirvani.	Kheralu.	2½"	133'	½	...	61	45-12- 0	278- 4- 0	324- 0- 0	2- 7- 0	Unsuccessful.
41	Dela Public Well ...	Dela.	Mehsana	2½"	88'	½	2	36	205- 4-10	421-12- 0	627- 0-10	7- 2- 0	Successful.
	<i>Amreli District with Musto Patent Set.</i>												
42	Virjibhai Shivdas ...	Amreli.	Amreli.	4"	32'-3"	2	1	27	79-12- 7	69- 3- 0	148-15- 7	4-10- 0	Successful.
43	Valabbhai Govindji.	Do.	Do.	4"	43'-6"	½	...	48	136-15- 2	85- 0- 0	221-15- 2	5- 2- 3	Unsuccessful.
44	Naranbhai Gordhan- bhai ... ..	Do.	Do.	4"	32'	1	1	14	42-11- 6	39- 0- 0	81-11- 6	2- 8- 6	Successful.
	<i>Navsari District with Musto Patent Set.</i>												
45	Manaji Kuverji ...	Borkhadi	Vyara.	4"	...	...	...	...	...	...	...	...	Incomplete

Particulars in details for the year 1921-22.

Serial No.	Item.	Baroda District Size of Bore hole.			Kadi District. Size of Bore hole.	Amreli Dis- trict, Size of Bore hole.	Navsari Dis- trict, Size of Bore hole.	Total		
		4"	3"	2½"	2½"	4"	4"	4"	3"	2½"
1	2	3	4	5	6	7	8	9	10	11
1	Bore Made ... ..	5	9	15	12	3	1	9	9	27
2	Successful Bores... ..	4	6	13	9	2	...	6	6	23
3	Failures .. ...	1	...	1	...	...	...	1	...	1
4	Incomplete including on hand ... ..	...	...	...	...	...	1	1	...	...
5	Abandoned at well owner's request, mishap of tools or owing to salt water ..	...	3	1	3	1	...	1	3	4
6	Total Depth Bored ...	321'-0	554'-0'	724'-9"	975'-5"	107'-9"	...	428-9	554	1,700-2
7	Total cost of successful Bores, only in Rs. ...	1,790-6-1	1,290-8-0	1,472-14-3	3,276-6-9	226-11-1	...	2,017-1-2	1,290-8-0	4,749-5-0
	Percentage of success ...	...	79-3	...	75	66-6	...	...	...	...

8	Average No. of working days for each bore ...	27	22	14	30	21	...	...	...	...
10	No. of accidents took place in the year ...	...	1	...	4	...	...	...	5	...
11	No. accidents removed ...	...	1	...	4	...	...	...	5	...
12	Average No. of feet bored by each machine in 8 months ...	321	277	242	325	*107	...	...	...	...

\* Worked for 3 months only.

## APPENDIX

The Statement showing number of Wells

Names of Mahals.	1911-12.					1912-13.					1913-		
	Successful.	Water.	Un-successful.	Incomplete.	Total.	Successful.	Water.	Unsuccessful.	Incomplete.	Total.	Successful.	Water.	Unsuccessful.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
<b>BARODA DISTRICT.</b>													
Baroda ...	5	74	3	...	8	16	32	3	1	20	1	1	...
Padra ...	16		3	...	19	39	118	3	1	43	3	15	...
Waghodia ...	1		3	...	4	...	...	...	...	...	...	...	...
Petlad ...	22	223	5	...	27	25	92	1	1	27	10	39	1
Bhadran ...	30		1	...	31	43	234	...	1	44	12	42	4
Shinor ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Karjan ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Savli ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dabhoi ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	74	297	15	...	89	123	476	7	4	134	26	97	5
<b>KADI DISTRICT.</b>													
Mehsana ...	2	58	...	1	3	...	...	...	...	...	2	5	...
Visnagar ...	7		...	1	8	4	8	1	...	5	3	7	1
Kheralu ...	1		2	...	3	...	...	1	...	1	...	...	...
Sidhpur ...	...		1	...	1	...	...	...	...	...	4	11	1
Chanasma ...	...		2	...	2	...	...	...	...	...	...	...	1
Kalol ...	...		...	...	...	...	...	...	...	...	...	...	...
Dehgam ...	9		3	...	12	16	14	1	...	11	7	11	1
Vijapur ...	...		...	...	...	...	...	...	...	...	1	1	1
Attarsumba ...	1	...	...	1	4	5	...	...	4	...	...	1	

XIII.

bored in different Talukas till the year 1921-22.

14.		1914-15.					1915-16.					1916-17.				
Incomplete.	Total.	Successful.	Water.	Unsuccessful.	Incomplete.	Total.	Successful.	Water.	Unsuccessful.	Incomplete.	Total.	Successful.	Water.	Unsuccessful.	Incomplete.	Total.
15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
1	2	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...
...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	11	34	126	...	...	34	25	72½	...	...	25	5	10	2	1	8
1	17	3	5	...	...	3	13	47	...	1	14	3	12	...	...	3
1	1	4	9	...	...	4	...	...	...	...	...	...	...	...	...	...
...	...	1	5	...	...	1	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	34	42	145	1	...	43	38	119½	...	1	39	8	22	2	1	11
...	2	...	...	1	...	1	8	15	...	2	10	...	...	...	...	...
1	5	5	13	1	2	8	19	38½	5	...	24	7	13	...	...	7
...	...	...	...	...	...	...	...	...	2	...	2	...	...	...	...	...
1	6	3	6	...	...	3	...	...	...	...	...	...	...	...	...	...
...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	10	16	...	...	10	1	2	1	...	2
1	9	4	8	2	...	6	16	40	4	1	21	4	7	1	1	6
...	2	4	14	...	...	4	14	31½	...	...	14	...	...	...	...	...
...	1.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

## APPENDIX

The Statement showing number of Wells

Names of Mahals.	1917-18.					1918-19.				
	Successful.	Water.	Unsuccessful.	Incomplete.	Total.	Successful.	Water.	Unsuccessful.	Incomplete.	Total.
1	32	33	34	35	36	37	38	39	40	41
<b>BARODA DISTRICT.</b>										
Baroda	...	...	...	...	...	12	22	2	...	14
Padra	...	...	...	...	...	3	4½	1	...	4
Waghodia	...	...	...	...	...	9	11	...	2	11
Petlad	1	1	...	...	1	21	60	2	1	24
Bhadran	...	...	...	...	...	...	...	...	...	...
Sinor	...	...	...	...	...	...	...	...	...	...
Karjan	3	10	1	...	4	...	...	...	...	...
Savli	2	7	...	...	2	1	1½	3	...	4
Dabhoi	...	...	...	...	...	1	1	2	...	3
Total	6	18	1	...	7	47	100	10	3	60
<b>KADI DISTRICT.</b>										
Mehsana	...	...	...	...	...	2	4	2	1	5
Visnagar	5	6½	1	...	6	23	40	7	5	35
Kheralu	...	...	...	...	...	...	...	...	...	...
Sidhpur	1	1	...	...	1	...	...	...	...	...
Chanasma	...	...	...	...	...	3	3	...	...	3
Kalol	...	...	...	...	...	...	...	...	...	...
Dehgam	...	...	...	...	...	18	29	2	2	22
Vijapur	1	1	...	...	1	...	...	...	...	...
Attarsumba	...	...	...	...	...	2	2	...	...	2



## XIII.

bored in different Talukas till the year 1921-22.

1919-20.					1920-21.					1921-22.					Total No. of successful wells since 1911.
Successful.	Water.	Unsuccessful.	Incomplete.	Total.	Successful.	Water.	Unsuccessful.	Incomplete.	Total.	Successful.	Water.	Unsuccessful.	Incomplete.	Total.	
42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
...	...	...	1	1	8	19	2	...	10	7	15½	1	...	8	49
...	...	...	...	...	4	5½	1	...	5	5	12	1	...	6	70
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10
10	27	2	1	13	26	83	4	1	31	11	35	1	...	12	190
...	...	...	...	...	2	9	5	...	7	...	...	1	...	1	106
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4
1	4	...	...	1	3	3½	...	...	3	...	...	...	...	...	8
6	8½	1	...	7	1	1	3	1	5	...	...	1	...	1	10
...	...	1	...	1	...	...	...	...	...	...	...	1	...	1	1
17	39½	4	2	23	44	121	15	2	61	23	62½	6	...	29	448
1	1	...	...	1	8	15½	1	1	10	3	4	...	...	3	26
9	12½	3	1	13	5	6	5	...	10	5	9	2	...	7	92
...	...	2	...	2	...	...	...	...	...	...	...	1	...	1	1
...	...	...	...	...	...	...	2	...	2	...	...	...	...	...	8
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	11
4	15	1	1	6	16	28½	3	...	19	...	...	...	...	...	88
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	20
...	...	...	...	...	...	...	...	...	...	1	2	...	...	1	8

## APPENDIX

Names of Mahale.	1911-12.					1912-13.					1913-		
	Successful.	Water.	Unsuccessful.	Incomplete.	Total.	Successful.	Water.	Unsuccessful.	Incomplete.	Total.	Successful.	Water.	Unsuccessful.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Kadi	...	...	...	...	...	5	7	2	...	8	...	...	...
Pattan	...	...	...	...	...	1	1	...	...	1	...	...	...
Total	20	58	8	2	30	24	35	6	...	30	17	35	6
NAVSARI DISTRICT.													
Vyara	...	...	...	...	...	...	...	...	...	...	...	...	...
Navsari	...	...	...	...	...	36	52	1	1	38	1	1	1
Kamrej	...	...	...	...	...	2	2	...	...	2	4	4 $\frac{1}{2}$	1
Gandevi	...	...	...	...	...	...	...	...	...	...	20	40 $\frac{1}{2}$	2
Mahuva	...	...	...	...	...	...	...	...	...	...	...	...	1
Palsana	...	...	...	...	...	...	...	...	...	...	1	1	...
Total	...	...	...	...	...	38	54	1	1	40	26	47 $\frac{1}{2}$	5
AMRELI DISTRICT.													
Okhamandal.	...	...	...	...	...	...	...	...	...	...	...	...	...
Kodnar	...	...	...	...	...	...	...	...	...	...	...	...	...
Beyt	...	...	...	...	...	...	...	...	...	...	...	...	...
Amreli	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	...	...	...	...	...	...	...	...	...	...	...	...	...
Grand Total...	94	355	23	2	119	185	565	14	5	204	69	179 $\frac{1}{2}$	16

XIII.—Continued.

14.		1914-15.					1915-16.					1916-17.				
Incomplete.	Total.	Successful.	Water.	Unsuccessful.	Incomplete.	Total.	Successful.	Water.	Unsuccessful.	Incomplete.	Total.	Successful.	Water.	Unsuccessful.	Incomplete.	Total.
15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	26	16	41	4	2	22	67	141	11	3	81	12	22	3	2	17
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	2	13	14	1	...	14	...	...	...	...	...	...	...	...	...	...
...	5	3	3	1	...	4	...	...	...	...	...	...	...	...	...	...
...	22	2	2	1	...	3	...	...	...	...	...	...	...	...	...	...
...	1	3	3	...	...	3	...	...	...	...	...	...	...	...	...	...
...	1	1	1	...	...	1	...	...	...	...	...	...	...	...	...	...
...	31	22	23	3	...	25	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6	91	80	209	8	2	90	105	260	11	4	120	20	44	5	3	28

## APPENDIX

Names of Mahals.	1917-18.					1918-19.				
	Successful.	Water.	Unsuccessful.	Incomplete.	Total.	Successful.	Water.	Unsuccessful.	Incomplete.	Total.
1	32	33	34	35	36	37	38	39	40	41
Kadi	...	...	...	...	...	...	...	...	...	...
Pattan	...	...	...	...	...	...	...	...	...	...
Total	7	8½	1	...	8	48	78	11	8	67
NAVSARI DISTRICT.										
Vyara	...	...	...	...	...	...	...	...	...	...
Navsari	...	...	...	...	...	...	...	...	...	...
Kamrej	...	...	...	...	...	...	...	...	...	...
Gandevi	...	...	...	...	...	...	...	...	...	...
Mahuva	...	...	...	...	...	...	...	...	...	...
Palsana	...	...	...	...	...	...	...	...	...	...
Total	...	...	...	...	...	...	...	...	...	...
AMBALI DISTRICT.										
Okhamandal.	1	...	...	...	1	7	4	3	...	10
Kodinar	...	...	...	...	(...)	...	...	...	...	...
Beyt	...	...	...	...	...	2	1	...	...	2
Amreli	...	...	...	...	...	1	5	...	...	1
Total	1	1	...	...	1	10	10	3	...	13
Grand Total	14	27½	2	...	16	105	188	24	11	140

XIII.—*Concluded.*

1919-20.					1920-21.					1921-22.					Total No. of successful wells since 1911.
Successful.	Water.	Unsuccessful.	Incomplete.	Total.	Successful.	Water.	Unsuccessful.	Incomplete.	Total.	Successful.	Water.	Unsuccessful.	Incomplete.	Total.	
42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
14	28½	6	2	22	29	50	11	1	41	9	15	3	...	12	263
...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	50
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	9
...	...	...	...	...	3	2½	...	...	3	...	...	...	...	...	25
2	4	...	...	2	...	...	...	...	...	...	...	...	...	...	5
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
2	4	...	...	2	3	2½	...	...	3	...	...	...	1	1	91
5	4½	3	...	8	...	...	...	...	...	...	...	...	...	...	12
2	...	...	...	2	...	...	...	...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	...	...	...	2	3	...	1	3	4
7	4½	3	...	10	...	...	...	...	...	2	3	...	1	3	20
40	77	13	4	57	76	173½	26	3	105	34	80½	9	2	45	822

## APPENDIX

Statement showing classification of animals treated at Dispensaries

Para 48 of the Annual Report

1	Baroda.					Navsari.					Pattan.		
	At Dispensary.			In District.	Total.	At Dispensary.			In District.	Total.	At Dispensary.		
	Last year's cases on hand.	Fresh cases.	Total.			Last year's cases on hand.	Fresh cases.	Total.			Last year's cases on hand.	Fresh cases.	Total.
	2	3	4	5	6	7	8	9	10	11	12	13	14
Horses ... ..	44	808	852	...	852	2	118	120	...	120	...	274	274
Cattle ... ..	50	826	876	...	876	19	617	636	86	722	...	697	697
Dogs ... ..	39	539	578	...	578	1	59	60	...	60	...	25	25
Others ... ..	11	308	319	...	319	2	41	43	...	43	...	111	111
<b>Total ... ..</b>	<b>144</b>	<b>2481</b>	<b>2625</b>	...	<b>2625</b>	<b>24</b>	<b>835</b>	<b>859</b>	<b>86</b>	<b>945</b>	...	<b>1107</b>	<b>1107</b>
<b>Out of which number of cases.</b>													
Cured ... ..	...	...	1793	...	1793	...	...	741	22	763	...	775	...
Relieved ... ..	...	...	698	...	698	...	...	34	64	98	...	93	...
Died ... ..	...	...	22	...	22	...	...	8	...	8	...	17	...
Discontinued Treatment ... ..	...	...	...	...	...	...	...	51	...	51	...	173	...
On hand on 31st July 1922 ... ..	...	...	112	...	112	...	...	25	...	25	...	49	...

## NO. XIV.

and in the District by the Veterinary Surgeons as referred to in  
for the year 1921-22.

In District.	Mehsana.						Amreli.						Petlad.					
	Total.	At Dispensary.			In District.	Total.	Total.	At Dispensary.			In District.	Total.	At Dispensary.			In District.	Total.	
		Last year's cases on hand.	Fresh cases.	Total.				Last year's cases on hand.	Fresh cases.	Total.			Last year's cases on hand.	Fresh cases.	Total.			
15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
...	274	3	88	91	...	91	3	89	92	...	92	5	129	134	...	134		
...	697	3	356	359	43	402	27	865	892	...	892	21	664	685	...	685		
...	25	1	50	51	...	51	...	4	4	...	4	...	44	44	...	44		
...	111	...	63	63	...	63	...	55	55	...	55	8	264	272	...	272		
...	1107	7	557	564	43	607	30	1013	1043	...	1043	34	1101	1135	...	1135		
...	775	...	...	488	43	531	...	...	1015	...	1015	...	...	995	...	995		
...	93	..	...	16	...	16	...	...	3	...	3	...	...	101	...	101		
...	17	...	...	23	...	23	...	...	1	...	1	...	...	10	...	10		
...	173	...	...	32	...	32	...	...	...	...	...	...	...	17	...	17		
...	49	...	...	5	...	5	...	...	24	...	24	...	...	22	...	22		

## APPENDIX

Statement showing classification of animals treated at Dispensaries

Para 48 of the Annual Report

1	Bhadran.					Dabhoi.					Vyara.		
	At Dispensary.			In District.	Total.	At Dispensary.			In District.	Total.	At Dispensary.		
	Last year's cases on hand.	Fresh cases.	Total.			Last year's cases on hand.	Fresh cases.	Total.			Last year's cases on hand.	Fresh cases.	Total.
	32	33	34	35	36	37	38	39	40	41	42	43	44
Horses ...	2	82	84	...	84	...	109	109	...	109	4	99	103
Cattle ...	8	531	539	...	539	13	644	657	...	657	8	275	283
Dogs ...	...	11	11	...	11	1	39	40	...	40	...	6	6
Others ...	...	43	43	...	43	1	162	163	...	163	...	14	14
Total ...	10	667	677	...	677	15	954	969	...	969	12	394	406
Out of which number of cases.													
Cured ...	...	...	601	...	601	...	...	818	...	818	...	...	357
Relieved ...	...	...	2	...	2	..	...	120	...	120	...	...	22
Died ...	...	...	5	...	5	...	...	16	...	16	...	...	5
Discontinued Treatment ...	...	...	51	...	51	...	...	11	...	11	...	...	12
On hand on 31st July 1922 ...	...	...	18	...	18	...	...	4	...	4	...	...	10



## NO. XIV.

and in the District by the Veterinary Surgeons as referred to in  
for the year 1921-22.

		Kathor.					Karchalia.					Total.				
In District.	Total.	At Dispensary.			In District.	Total.	At Dispensary.			In District.	Total.	At Dispensary.			In District.	Total.
		Last year's cases on hand.	Fresh cases.	Total.			Last year's cases on hand.	Fresh cases.	Total.			Last year's cases on hand.	Fresh cases.	Total.		
		47	48	49			52	53	54			57	58	59		
45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61
...	103	6	179	185	...	185	1	72	73	...	73	70	2047	2117	...	2117
93	376	18	498	516	53	569	15	989	1004	17	1021	182	6962	7144	292	7436
...	6	...	15	15	...	15	...	5	5	...	5	42	797	839	...	839
...	14	8	155	163	...	163	1	256	257	...	257	31	1472	1503	...	1503
93	499	32	847	879	53	932	17	1322	1339	17	1356	325	11278	11603	292	11895
52	409	...	...	828	19	847	...	...	1122	11	1133	...	...	9523	147	9670
...	22	...	...	10	15	25	...	...	4	...	4	...	...	1003	79	1182
41	46	...	...	7	19	26	...	...	9	6	15	...	...	123	66	189
...	12	...	...	...	...	...	...	...	162	...	162	...	...	509	...	509
...	10	...	...	34	...	34	...	...	42	...	42	...	...	345	...	345

### APPENDIX NO. XV.

The statement showing the classification of Diseases of animals in the year 1921-22.

Serial No.	Name of the Disease.	Baroda.	Navsari.	Pattan.	Mehsana.	Amreli.	Petalad.	Bhadran.	Vyara.	Kathor.	Dabhoi	Karchalia.	Total.	Remarks.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	Specific ...	53	7	176	64	26	20	7	12	41	4	108	518	
2	Nervous ...	20	6	4	19	41	25	2	3	8	12	5	145	
3	Circulatory ...	17	20	...	1	62	8	37	13	26	13	1	198	
4	Skeleton ...	142	38	32	2	96	113	44	28	80	127	20	722	
5	Eye and ear ...	125	70	37	30	101	64	19	22	96	41	44	649	
6	Skin ...	247	82	17	15	60	128	13	103	70	299	23	1,057	
7	Lymphatic ...	8	9	...	...	63	4	...	9	9	...	1	103	
8	Digestive ...	817	147	120	111	160	178	134	56	81	321	106	2,231	
9	Respiratory ...	98	24	32	15	117	34	2	14	32	...	28	394	
10	Urinary ...	52	12	28	19	99	37	1	19	28	40	9	345	
11	Genital ...	95	36	6	8	32	78	28	4	29	...	7	323	

12	Miscellaneous ...	800	384	655	273	156	415	380	111	347	97	970	4,588
	Total ...	2,481	835	1,107	557	1,013	1,101	667	394	847	954	1,322	11,278

## REMARKS.

1	Out-door Patients.	2,473	835	1,060	546	985		667	392	847	954	1,319	11,179
2	In-door Patients.	8	...	47	11	28	...	...	2	...	...	3	99
3	Daily average attendance of Out-door Patients ...	28	25.80	22.2	15.9	32.7	17.7	11.92	10.6	21	16	12	19.3
4	Daily average attendance of In-door Patients ...	14	...	2	1	44	...	...	33	...	...	1	14
5	Post-mortem ...	..	..	..	..	..	..	..	..	..	..	..	..
6	Major operations ..	55	20	107	57	77	31	22	37	49	72	11	538
7	Minor Operations.	26	228	37	51	136	56	19	54	178	45	49	877
8	Mofussil cases ..	403	437	457	264	541	535	232	126	419	412	455	4,281
9	Fees charged, ...	128.10	32.13	37.0	12.14	17.14	...	...	9.15	22.11	...	...	261.13



**NO. XVI.**  
 number of animals treated on tour and the number of animals  
 in the year 1921-22.

	Pehlad.			Bhadran.			Dabhoi.			Vyara.			Kathor.			Kachali.			Total.	
	Attended.	No. of out-breaks reported.		Attended.	No. of out-breaks reported.		Attended.	No. of out-breaks reported.		Attended.	No. of out-breaks reported.		Attended.	No. of out-breaks reported.		Attended.	No. of out-breaks reported.		Attended.	No. of out-breaks reported.
18																				
19																				
20																				
21																				
22																				
23																				
24																				
25																				
26																				
27																				
28																				
29																				
30																				
31																				
32																				
33																				
34																				
35																				
36																				
37																				
38																				
39																				
	Remarks.																			
	100	44	7	4	19	29	18	25	68	120	292	18	25	68	120	292	18	25	68	120

## APPENDIX NO. XVII.

The statement showing the receipts and expenditure of the Veterinary Dispensaries in details in the year 1921-22.

No.	Baroda.	Pattan.	Navsari.	Mehsana.	Amreli.	Petlad.	Bhadran.	Dabhoi.	Vyara.	Kathor.	Karchalia	Total.	Remarks.
Receipts ...	128-10-0	652- 1-1	91-15-0	30-10- 0	17-14- 0	...	...	...	23-14- 6	22-11-0	...	..	972-11-7 + 4,806- 0-0 B, Contribution, <hr/> 5,778-11-7
Budget Expenditure,													
1 Pay ...	7474-14- 4	1476-12- 4	1423- 0-1	1203- 0- 9	1687- 4- 7	1297-, 3-6	1266- 3-0	955-14- 6	1089-11-11	1887- 0-0	1191-14-3	15,394-14- 3	
2 Travelling allowance.	...	127-10-6	13- 2-6	84- 5- 6	54- 7- 0	83-13-3	6-13-2	6- 6- 9	68- 7- 6	23- 8-0	28- 8-9	502- 2-11	
3 House rent, etc. ...	...	49- 4-0	...	19- 8- 0	75- 0- 0	180- 0-0	180- 0-0	180- 0- 0	180- 0- 0	180- 0-0	144- 0-0	1,187-12- 0	
C. Medicines.	442- 7- 6	178- 9-9	255-14-0	47-12- 6	221- 9- 0	296- 5-3	151- 0-0	221- 0- 0	149- 2- 3	200- 0-0	150-13-3	2,294- 0- 9	
E. Medicines.	1236-10- 0	441- 7-6	536-12-8	334- 7- 2	610-14-11	637-13-2	202- 3-5	288- 8- 8	266- 8- 6	556-13-3	418- 3-0	5,560- 6- 3	
Instruments and Dead-stock...	...	...	...	...	...	...	...	...	...	...	...	...	
Contingency.	36- 0- 0	50- 0-0	56- 0-4	80- 0- 0	40- 8- 9	61- 0-0	53-10-9	45-15- 0	36- 0- 0	60- 0-0	45- 6-0	514- 2-10	
<b>Total ...</b>	<b>4151-15-10</b>	<b>2412- 8-1</b>	<b>2802- 6-1</b>	<b>1719- 1-11</b>	<b>2689-12- 3</b>	<b>2594-13-2</b>	<b>1870-14-4</b>	<b>1697-12-11</b>	<b>1810- 9- 2</b>	<b>2431-15-6</b>	<b>1978-13-3</b>	<b>25,660-10- 6</b>	

1. Forwarded with compliments to H. E. the Amatya Saheb for favour of review. The report is interesting.

2. It is an oft-repeated complaint that the cultivators take very little interest in the working of the Model Farms. The reason is not far to seek. Unless the results of the Farm workings are demonstrated to the cultivators to be more paying, no amount of work in this direction would appeal to them, for they are calculating people and, as such, care more for economic than for laboratory success. The Department would, therefore, do well to remember this mentality of the Agriculturists whenever it proposes to undertake new experiments or demonstrations.

3. I very much doubt the utility of the propaganda work which is at present being done by the Agricultural Inspectors of the four Districts. The question is how many useful implements like the Chaff-cutters, the B. T. Plough, etc., have been introduced by them among the agriculturists. It is no good going from place to place without leaving behind some marks of practical gain to the agriculturists. This the Agricultural Inspectors can easily do by taking such implements with them from village to village and demonstrating their usefulness and economic advantage in their own presence to groups of cultivators. I think there are great possibilities in the near future for the Chaff-Cutter. Large quantities of fodder are at present wasted as the stalks are too hard for the cattle to eat and chew ; so what is at present thrown away as refuse can be turned to advantage by cutting the hard stalks into small pieces with the Chaff-Cutter. It is certain that the cattle will relish the thin-cut pieces which are more palatable and at the same time more strength-giving. The price of the Chaff-Cutter is within easy reach of many cultivators and they are sure to take to it if they are made to observe its economic use. I am inclined to think that at least a portion of the area of land which is at present devoted to grass growing can be spared by the popularisation of the Chaff-Cutter and can be brought under cultivation for better crops. Similar is the case with the B. T. plough. The report does not say how many such useful implements were introduced by virtue of the efforts of the Department, during the year.

BARODA,

(Sd.) G. R. NIMBALKAR,

5th December 1922,

Pragati Adhikari,

(Sd.) M. K. NADKARNI.

Baroda State.

**REVIEW**  
OF THE  
*Annual Report of the Department of Agriculture*  
for the year 1921-22.

—:0:—

Government note with pleasure that the report is, this year, much more punctual than last year.  
The report is punctual.

2. The Sar Suba's remarks should be communicated to the Director of Agriculture, and his attention invited specially to para 2 of the recommendations made by Mr. Nimbalkar as to the popularisation of the chaff-cutter. There is no doubt that this instrument should be taken up by the cultivators, and that very great economy of fodder would result from its employment. It may also be noted that at Mehsana there are a number of implements placed in a museum. It would be very much better if these implements were demonstrated on the Jagudan farm. No conceivable object can be served by keeping things which are only useful if actively employed in a museum. People do not want to see what they look like, so much as how they work.

Re: the chaff-cutter and other implements.

3. The Director's remarks on tractors and tractor demonstration are noted. Probably the best field for their use is at Amreli where the survey numbers are large and not so split up into sub-divisions.

The tractors may be used at Amreli where there are large survey numbers.

4. The Director has already been asked to make some attempts to demonstrate the profits of irrigation on areas below our new irrigation tanks. No mention of anything done in this direction has been made. The Director's attention is again drawn to this matter. At many places there is much reluctance on the part of the people to use water which has been provided at great expense by Government. This reluctance is partly due to the ignorance of the profits derivable from skilled irrigation. And this ignorance it is the business of the Agricultural Department to remove. Complaint is often made that the Department is not in touch with the people. Here is a sphere of action, activity and energy in which would certainly result in increased appreciation of the Department's work by the cultivators.

The department should make attempts to show the profits of irrigation on areas below our new irrigation tanks.

5. One sub-head of the report is "Dairy". One might suppose from its heading that the Department's main concern was the immediate production of milk and milk-products. As a matter of fact, however, what we are trying to do is to establish first class herds of superior animals by selective breeding. The immediate production of milk is only a secondary object. There is a persistent demand in this country (chiefly owing to religious ideas) for facilities for the breeding of a larger number of cattle. This demand, whatever may be said of its religious significance, is based on a totally wrong conception of

The chief object of the Govt. is to establish first class herds of superior animals by selective breeding. The production of milk is only a secondary object.



# Government of His Highness the Maharaja of Mysore.

## GENERAL AND REVENUE DEPARTMENTS.

G. O. No. L. 2468-89—Sany. 63-22-3, dated 29th September 1923.

### Report on the working of Sanitation in Mysore during the Calendar year 1922.

Reviews the —.

READ—

Report on the working of Sanitation in Mysore for the year 1922, received from the Sanitary Commissioner in Mysore with letter No. P. 49, dated the 15—16th June 1923.

ORDER NO. L. 2468-89—SANY. 63-22-3, DATED 29TH SEPTEMBER 1923.

Recorded,

2. Mr. A. K. Pani, D.F.H., held the appointment of the Sanitary Commissioner and *Ex-officio* Director of the Public Health Institute till the 11th July 1922, when the consequent on the retrenchments ordered in the Sanitary Department, he handed over charge of the office to Mr. H. B. Mylvaganam, F.R.C.S. (Eng.) Senior Surgeon, who became *Ex-officio* Sanitary Commissioner. Though the appointments of District Sanitary Officers were ordered to be abolished, the retrenchment came into effect only after the close of the year under review.

3. *Vital Statistics.*—The total number of births registered in the State during the year was 104,948 or 17·91 per mille of the population as against 96,428 or 16·45 per mille during 1921. The highest birth-rate for the year, *viz.*, 21·53 was recorded in the Kolar District and the lowest, *viz.*, 14·40 in the Mysore District. The total number of deaths during the year was 85,090 or 14·52 per mille of the population as against 83,343 or 14·22 per mille in the preceding year. The highest death-rate for the year, *viz.*, 19·44 was recorded in the Bangalore District and the lowest *viz.*, 10·38 for the Chitaldrug District. The Sanitary Commissioner states that the registration of vital statistics in villages is not satisfactory for the following reasons:—

- I. Reports from several villages are not sent in time or not at all sent to the Taluk Office.
- II. Patels submit the village monthly returns through the respective Sheikdars instead of direct to the Taluk Office.
- III. The Sanitary Inspectors are not entrusted with the work of scrutinising and compiling Vital Statistics;
- IV. Full time Sub-Registrars of Births and Deaths are not employed in many of the Municipalities; and
- V. Sufficient number of printed forms of registers of births and deaths was not issued from the Government Press.

Accurate registration of births and deaths is of paramount importance in order that the exact state of public health may be ascertained and efforts should be made to improve the work of registration, both in urban and rural areas, by the Municipal Councils and the Local Boards concerned. The Superintendent of the Government Stationery is requested to arrange for the immediate supply of the forms required in consultation with the Deputy Commissioners and the Presidents of the Local Boards, who should send up the necessary indents without further loss of time.

4. The ratio of deaths per thousand of the population continued as usual to be the highest among children under one year of age. Attention of the Local Board is drawn to the high rate of infantile mortality and they are requested to take suitable steps to reduce it as far as possible.

5. *Diseases.*—The total number of deaths from cholera during the year was 46 against 29 in 1921, the largest number of deaths, *viz.*, 37 having been in Molakalmuru Taluk of the Chitaldrug District, all the cases being imported from the bordering British Taluk, Rayadurg. The total number of deaths from small-pox was 1,149 against 1,560 in 1921. The total number of vaccinations performed during the year was 117,356 as compared with 124,593 in 1921. The total number of attacks and deaths from plague was higher than that of the previous two years being 12,110 and 8,945 as against 11,516 and 8,244 respectively, in 1921 and 10,793 and 7,670 respectively in 1920. The largest number of deaths, *viz.*, 2,814 occurred in the

No. L. 2468-89—SANY. 63-22-3, DATED 29TH SEPTEMBER 1923.

Bangalore District. The total number of inoculations performed was 8,416 as against 75,714 in 1921, the largest number of inoculations aggregating 35,698 having been done in the Kolar District.

Influenza accounted for 108 deaths during the year, the mortality reported on this account in the Bangalore and Mysore Cities and the Kolar Gold Fields being 6, 2 and 26 respectively.

The number of deaths from fevers was 40,859 against 40,091 in 1921, 34,286 in 1920 and 32,771 in 1919.

Two thousand four hundred and thirty-seven attacks of relapsing fever with 812 deaths were reported and 807 intravenous injections were given during the year. Government note that everything possible is being done by the local bodies and the Medical profession towards the treatment of patients and the prevention of the spread of the disease.

The number of deaths from dysentery and diarrhoea was 3,083 against 2,667 in 1921 and that under respiratory diseases was 2,197 against 2,209 in 1921. The number of deaths from injuries was 1,090 against 1,313, while under all other causes, it was 27,721 against 27,230 in 1921.

6. *Central Sanitary Board.*—The separation of the Public Health Institute from the administrative control of the Sanitary Commissioner and the abolition of the post of the Senior Assistant Director of the Institute rendered the place of the Secretary of the Board vacant. The Sanitary Commissioner is requested to submit suitable proposals for the appointment of a Secretary to the Board. The Board advised on the schemes relating to the drainage of Davangere and Hassan Towns, and the scheme relating to improvements of Seringapatam was under their consideration. The functions of the Board were purely advisory and no allotment was placed at the disposal of the Board for direct expenditure on Sanitary works.

7. *Village Sanitation.*—The provisions of the Village Sanitation Regulation were newly introduced into 349 villages, the total number of such villages in which the rules were in force being 12,967 at the end of 1922. Separate places for storing manure were newly set apart in 736 villages. Eighteen villages were newly brought under the Scheme of Village Improvement Committees. Extensions were formed in 37 villages and 13 villages were shifted to healthier sites.

8. *Improvement of the Malnad.*—On account of financial stingency, no new works were undertaken for improvement of the Malnad, but necessary funds were placed at the disposal of the District Boards to complete the incomplete works. Quinine continued to be distributed, as usual, and special vaccinators employed under the Malnad Improvement Scheme were retained and they performed 8,428 vaccinations, of which 7,571 were successful.

9. *Medical Inspection of School children.*—Three hundred and sixty-four schools, in places where dispensaries are located, were inspected and 33,841 children were advised to go in for treatment, of whom 29,708 were cured.

10. *Inspections.*—The Sanitary Commissioner and the District Sanitary Officers did a fair amount of inspection work.

11. *Miscellaneous.*—The report discloses that many of the Municipalities have not been surveyed and that only a few of them have any fixed programme of works for improvement of drainage, general sanitary condition and for removal of congestion and that bye-laws have not been framed in a very large number of Municipalities to improve sanitation and regulate house construction. The local bodies concerned should take immediate steps to remove these defects.

T. E. JEYARAMA AIYAR,  
Secy. to Govt., Rev. Dept.

To—The Sanitary Commissioner in Mysore.  
The Director of Public Health Institute.  
The Presidents of the City Municipal Councils of Bangalore and Mysore.  
The President, Sanitary Board, Kolar Gold Fields.  
The Deputy Commissioners of Districts.  
The Presidents of District Boards.  
The Superintendent, Government Stationery.

PRESS TABLE.

Exd.—A. M. K.

## REPORT ON SANITATION IN MYSORE FOR THE CALENDAR YEAR 1922.

The following is a summary, as furnished by the Meteorological Reporter to Government, of the chief meteorological features that prevailed in Mysore during 1922.

1. April was the hottest month; the monthly mean maximum temperature having been nearly 1° in excess of the normal. March was also warmer than usual. The annual mean was normal at Bangalore and Hassan, while the same was half a degree in defect at Mysore and Chitaldrug. The coldest part of the year was December in which the mean monthly defect was about 2° for Bangalore and Mysore and nearly 1° for Chitaldrug and Hassan. The yearly mean was in slight defect at Mysore and Bangalore and in slight excess at Hassan and Chitaldrug.

The monthly mean dry temperature did not differ much from the normal, the greatest excess being 0·9° in March and the greatest defect being 1·4° in December. The annual mean was about normal. The highest temperature, *viz.*, 100·3° was recorded at Chitaldrug and on the 2nd and the 5th April, while Hassan as usual recorded the lowest temperature for the year, *viz.*, 51·4° on the 6th December.

Humidity both absolute and relative was in great defect in February and December, while the same was in marked excess during November throughout the State.

The annual total rainfall for the State was during the year 34·22 inches against a normal of 36·10 falling short of the average by 5 per cent.

*Comparison of actual with that of average.*

District	Actual for 1922	Variation in inches	Variation in percentage
Bangalore .. .. .	31·06	+ 0·21	+ 1
Kolar .. .. .	26·95	- 1·03	- 4
Tumkur .. .. .	26·69	+ 0·63	+ 3
Mysore .. .. .	28·78	+ 0·72	+ 3
Hassan .. .. .	36·73	- 1·84	- 5
Shimoga .. .. .	47·34	-10·21	-18
Kadur .. .. .	69·58	- 5·08	- 7
Chitaldrug .. .. .	20·11	- 1·24	- 6
State .. .. .	34·22	- 1·88	- 5

From the above table it will be seen that so far as the annual totals are concerned there was not much variation from the normal except in the Shimoga district, where the deficiency was nearly 20 per cent. The monthly rainfall for 1922 for the State was as follows:—

Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sep.	Oct.	Nov.	Dec.
0·57	0·06	0·01	1·38	4·28	9·61	6·24	4·15	1·88	6·53	5·36	0·07

### PRICES OF FOOD GRAINS.

2. Rice was sold at 4·62 seers per rupee, ragi at 9·18 and cholam at 9·25 on an average against 4·70, 9·23 and 7·70 seers respectively in the previous year. Thus there was no appreciable rise or fall in the prices of any of these articles of food grains, as compared with the prices of the previous year.

### GENERAL CENSUS FIGURES.

3. The population of the State as per census of 1921 is 5,859,952 exclusive of the Civil and Military Station, Bangalore. The ratios throughout this report are based on this figure.

## GENERAL BIRTH REGISTRATION.

4. The total number of births registered during the year 1922 was 53,934 males and 51,014 females, making a total of 1,04,948 as against 49,580, 46,848 and 96,428 respectively in 1921. The ratio per 1,000 of population was 17.91 or 4.56 higher than that of the preceding year and .92 than the quinquennial mean.

The male births, as usual, preponderated, the proportion of males born to every 100 females born averaging 105.72 as against 105.83 in 1921.

Compared with 1921, all the districts recorded higher rates, the largest difference (3.25) being for Kolar and the lowest (.2) for Mysore.

The highest rate for the year under report was returned by Kolar (21.53) and the lowest by Mysore (14.40). The rates for other districts ranged between 16.30 (Kadur) and 19.86 (Chitaldrug).

Births exceeded deaths in all the districts, except Bangalore, the difference averaging 3.38 per mille as against 2.23 in 1921. More deaths than births were returned for the urban circles in Bangalore, Hassan and Shimoga districts and the rural circles of the Bangalore district, the difference averaging about .95 per mille.

## BIRTH REGISTRATION IN URBAN AREAS.

5. The total number of births registered in town circles during the year 1922 was 21,571, giving a ratio of 28.01 per mille of population as compared with 21,319 and 27.69 respectively in the preceding year. The corresponding figures for rural circles were 83,377 and 18.38 respectively. As in previous year there was an excess of births over deaths, averaging 5.20 per mille for town circles and 3.12 per mille for rural circles. Births exceeded deaths in 73 towns, the difference being marked in Nonavinakere (135.31). Forty-three of these towns were taluk headquarters. Among district headquarter towns, Chitaldrug returned larger number of births than deaths equivalent to 14.20 per mille.

The highest birth rates were recorded in Nonavinakere (282.86), Holavanahalli (151.17), Hulyurdurga (143.84) and Honnavalli (125.57) as in the previous year. As usual, the recorded death rates for these towns were also proportionately high due to the ratios being based on relatively small populations. Four other towns returned rates varying between 45.94 in Goribidnur and 94.31 in Bellavi. The marginally noted towns recorded very low rates. It is evident that the registration of vital statistics in these areas was neglected.

1. Tumkur	10.74
2. Closepet	10.63
3. Periyapatna	10.61
4. Talkad	10.20
5. Chiknayakanhalli	10.10
6. Kyathasandra	9.83
7. Bhadravati	9.76
8. Turuvanur	9.63
9. Yedatore	7.59
10. T. Narsipur	6.71
11. Melkote	3.49
12. Maddagiri	2.92

The following is a statement of births recorded in areas where a special staff for the registration of births and deaths was maintained:—

Place	Number of births	Ratio permille of population	Still births
Bangalore City	3,444	29.05	184
Mysore City	2,336	27.63	64
Kolar Gold Fields	3,659	41.73	98

## GENERAL DEATH REGISTRATION.

6. The total number of deaths recorded in 1922 was 85,090 as compared with 83,343 in the previous year. The death-rate was 14.52 as against 14.22 in 1921. According to districts, the highest rate (19.44) was returned for Bangalore and the lowest (10.38) for Chitaldrug. The death-rates for the other districts ranged between 10.68 (Mysore) and 18.32 (Kolar).

7. From the point of view of mortality, the month of May was the most healthy and the months of September, October, November and December the most unhealthy. There was a slight fall in the death-rate in the month of February as compared with that of January followed by a rise again in March. From

July, there was a continuous rise in the mortality rate until the close of the year, except during the month of November which returned a slightly lowered mortality than the preceding month. Considered by quarters, the quarter ending December returned the largest deaths and the quarter ending June the fewest.

8. The highest number of deaths was recorded at the age period of 60 and above (17,039) and 20-30 (10,353) as compared with 60 and above (17,246) in the preceding year. The ratio of deaths per 1,000 of population at the respective age periods was, as usual, highest among children under one year of age and the next highest at the age period of 60 and upwards.

9. The deaths among infants under one year of age numbered 9,020 as compared with 8,640 in 1921 and 9,240 in 1920, the ratios per 1,000 of recorded births being 89.94, 89.6 and 95.9 respectively. The highest rates were returned for Kadur (111.80), Kolar (100.42), and Shimoga (98.88) and the lowest rate (51.50) for Mysore.

The infantile mortality recorded in the Bangalore and Mysore Cities and on the Kolar Gold Fields was as under:—

Place	No. of deaths of infants	Ratios per mille of recorded births
Bangalore City	728	214.7
Mysore City	337	144.8
Kolar Gold Fields	750	204.9

The principal causes of deaths among infants in the Mysore City were debility, convulsions and premature birth. On the Kolar Gold Fields, bowel complaints and lung troubles, chiefly resulting from neglect in feeding and clothing are reported to have been responsible for a large proportion of deaths. Over seventy per cent of deaths from dysentery and diarrhoea were among children under five years of age. The rate was, however, lower than the quinquennial average (255.4), which is a satisfactory feature. This improvement is attributed to the fact that during the year 73 per cent of the recorded births were conducted under skilled maternity aid.

In their Order No. G. 8479-90—San. 19-20-4, dated the 26th October 1920, Government were pleased to commend for the consideration of the larger Municipal Councils the suggestion of the Sanitary Commissioner in regard to the opening of Municipal Depots for the supply of pure milk as a measure calculated to reduce infantile mortality and the appointment of Indian Lady Health Visitors to educate women in the nursing and the bringing up of infants. So far, the suggestion materialised only in the case of the Bangalore City where under the sanction of Government conveyed in their Proceedings No. L. 51-4—Ml. 118-20-8, dated the 6th July 1921, a Lady Health Visitor has been entertained. In the initial stage, the City Municipal Council decided to confine themselves to the programme relating to the improvement of midwifery aid all over the City. For this purpose, the eight municipal midwives were placed under the immediate supervision of the Lady Health Visitor who scrutinises the cases conducted by them and refers difficult cases to the Maternity. On reports furnished by the midwives, the Lady Health Visitor visits expectant mothers and gives them practical advice regarding ante-natal and post-natal hygiene. But, perhaps, the most important feature of the work is the impressment of the crude barbar midwives or Dais into service and the holding of regular classes under the supervision of the Lady Health Visitor to teach them the essential principles of conducting labour cases in an aseptic way. The assistance of these dais is taken to canvas cases for the trained Midwives. In this and other ways, endeavour is made to effectively link up old practices with the new and to bring about the much-needed reformation in midwifery methods. The appointment of a Lady Health Visitor has opened up kindred avenues of social activity, viz., the establishment of three clinic centres in different parts of the City for the examination of children and giving them necessary medical advice and help. In one of the centres,—Ganigarpet—arrangement is also made for the free distribution of good milk for the infants of poor parents. The City Municipal Council have recently resolved to subsidise this laudable scheme by a

monthly contribution of Rs. 30. It is most desirable that an arrangement such as the above should form part of the municipal organisation in at least the bigger municipalities in the State. The need is insistent in the case of the Mysore City, which affords wide scope for useful work in this direction.

10. The general death-rate among males averaged 14.78 per mille of population as compared with 14.25 among females. In the Kadur district, however, the female death-rate slightly preponderated, the difference being .5555 per mille of population. In the town circles more women than men died in proportion to population of each sex, the difference averaging .37 per mille. The proportion of the male deaths in the State to the female deaths was 107.73 to 100 as against 106.31 in the preceding year. The proportion was highest for Shimoga district (113.21) and lowest for Mysore district (104.71).

In the town circles 107.72 deaths occurred among males for every 100 deaths among females. In 32 towns, however, there was a preponderance of female deaths, the percentage ranging between 99.66 and 48.83. Of these, two were district head quarter towns, Hassan (91.56) and Kolar (66.92).

The following are the principal among the 9 towns that returned a high proportion of male to female deaths. Gudibanda (525.0), Gundlupet (257.14), Talkad (200.00), Bhadravati (204.55) and Challakere (218.18). The female death-rate preponderated at the age periods of 10 and under 15, 15 and under 20, 20 and under 30 and 30 and under 40, the difference being most noticeable at the age period 15 and under 20.

11. According to classes, the death rate among Mahomedans was 19.43, among Hindus 13.50, and among other classes 45.24, corresponding rates for 1921 being respectively 25.98, 12.90 and 40.69.

#### DEATHS IN URBAN AREAS.

12. The deaths registered in towns during the year under report numbered 17,563 against 20,096 in 1921, representing annual ratios of 22.81 and 26.10 per mille respectively. The highest total mortality rates were returned for Nonavinkere (147.55), Alur (99.80) and Hulyurdurga (91.04). In ten other towns the rates ranged between 40.38 (Hoskote) and 80.16 (Holavanahalli). Of these, taluk head quarter towns were Hoskote, Devanahalli, Sidlaghatta Hunsur and Channarayana.

In seventeen towns, the recorded deaths were below 10 per mille, the taluk headquarter towns among these being Mulbagal (7.93), Maddagiri (1.55), Gundlupet (5.44), Nagamangala (8.64), T.-Narsipur (2.10), Arsikere (8.47), Saklespur (8.81) and Holalkere (7.22). The registration of vital statistics in these towns calls for closer attention than appears to be at present given to it.

The following is a statement of mortality recorded in areas where a special staff for the registration of vital occurrences was employed.

Place	No of deaths	Ratios	Quinquennial mean
Bangalore City	3,806	32.10	43.37
Mysore City	1,796	21.39	36.11
Kolar Gold Fields	2,277	25.98	41.35

It will be seen that better health conditions prevailed in these areas. The comparison is most favourable in regard to Mysore City.

13. In the course of his tours during the year the Sanitary Commissioner had occasion to examine the births and deaths registers of the towns and villages he visited. It was noticed that the larger the administrative area, the greater the inaccuracies in the recorded figures and the less their reliability. As an instance, Yesalurpet with a population of about 1,130 recorded 39 births and 29 deaths for a period of 11 months, commencing from January 1922, yielding an annual ratio of 37.2 per mille for births and 28.3 per mille for deaths, which are fairly accurate. As against this, the registers in Chikmagalur, which is a district headquarter town, showed several omissions. The thirteen births recorded for February 1922 were short of the actuals by at least seven births. The omissions came to notice

long after the consolidation and submission of the monthly return from which they were therefore excluded. Similarly, entries relating to deaths among children under 7 years of age were conspicuous by their absence, as the burials in these cases take place anywhere outside the town and no information reaches the Octroi Manegar, who is the registrar of births and deaths. Yet, in the Chikmagalur town the notification of births and deaths is compulsory.

The most fruitful source of error lies in the compilation of the taluk statistics. Several village returns either do not reach the taluk office in time or are not sent in at all. In Sorab, against a standing list of 312 villages for the taluk, Returns of only 58 villages were incorporated into the consolidated monthly statement for September 1922, the returns of two hobbles not having been received at all. Similarly, in Tirthahalli taluk 47 out of 247 villages were omitted. The practice of patels submitting the village monthly returns through the respective shekdars, instead of direct to the taluk office is partly responsible for such omissions. Further, in the majority of cases the Taluk Sanitary Inspectors are not entrusted with the work of scrutinising and compiling vital statistics.

In regard to urban areas, very few of the Municipalities maintain full-time sub-registrars of births and deaths although the rules prescribe the employment of one sub-registrar for every five thousand of population in the Municipality.

The full supply of the printed revised forms of registers of births and deaths not having been issued from the Government Press, several villages continue to use loose sheets of paper for recording vital occurrences.

#### GENERAL HISTORY OF CHIEF DISEASES.

14. The following statement shows at a glance the death rates per mille from the chief causes of mortality in 1922 as compared with those in 1921.

Causes	Death-rates in 1922			Death-rates in 1921		
	Urban	Rural	Com- bined	Urban	Rural	Com- bined
Cholera ... ..	0'00	0'00	0'00	0'00	0'00	0'00
Small-pox ... ..	0'24	0'19	0'19	0'27	0'26	0'27
Plague ... ..	2'53	1'37	1'53	3'88	1'03	1'40
Fevers ... ..	6'08	7'11	6'97	7'78	6'70	6'84
Dysentery and Diarrhoea ... ..	1'34	0'40	0'52	1'16	0'35	0'45
Respiratory diseases ... ..	1'66	0'18	0'37	1'67	0'18	0'38
Injuries ... ..	0'33	0'16	0'18	0'48	0'18	0'22
All other causes ... ..	10'61	3'84	4'73	10'85	3'70	4'65
All causes ... ..	22'81	13'26	14'52	26'10	12'42	14'22

There was a decreased mortality under all heads except "plague" and "fevers", under each of which slightly higher rates were returned the difference being 0'13 per mille of population.

#### CHOLERA.

15. A total of 46 deaths from cholera was recorded against 29 in 1921. Out of the total deaths, 37 occurred in the Molakalmuru taluk, all the cases being imported from the bordering British taluk, Rayadroog. The remaining 6 deaths were returned from the Mysore and Hassan districts, but later investigations by the District Medical and Sanitary Officers concerned showed that the cases were probably not genuine cholera.

#### SMALL-POX.

16. Small-pox accounted for 1,149 deaths against 1,560 in 1921, representing annual ratios of '19 and '27 per mille respectively. The mean death-rate of the previous 5 years was '97. The year opened with 74 deaths in January. The highest number of deaths (120) was returned in the month April. June was the month of the least prevalence of the disease.

17. According to districts, the largest number of deaths (344) was returned for Mysore. The districts of Hassan and Kolar returned the lowest mortality from this cause, amounting to 22 and 6 respectively. The deaths returned for the other districts ranged between 79 in Shimoga and 257 in Bangalore.

18. Thirty-two towns returned a total of 189 deaths from small-pox as against 212 from 36 towns in 1921. The towns most affected were Sarjapur (757) and Haliyandurga (436). The other towns returned a rate of between .13 in Tarikere and 4.33 in Yelandur.

19. The total number of vaccinations performed during the year was 1,17,356 as compared with 1,24,593 in 1921.

The Compulsory Vaccination Regulation was introduced newly into 7 towns making a total of 68 towns at the end of the year. The question of introducing the Regulation throughout the State and modifying the existing rules so as to render them applicable to rural as well as to urban areas, was under the consideration of Government.

#### PLAGUE.

20. At the close of the year 1921, plague was prevalent in all the districts, the number of deaths registered in the month of December of the year having been 793. In January 1922, the number of deaths recorded was 677 followed by a steady fall to 141 deaths in May. From June onwards there was a rise in the mortality the highest figure being returned for November (1,280).

A total of 12,110 attacks with 8,945 deaths was reported for the year as compared with 11,516 attacks with 8,244 deaths in 1921. The death-rate was 1.53 as against 1.47 in the previous year and the ratio per cent of deaths to attacks was 73.86 against 71.59. The largest number of deaths (2,814) occurred in the Bangalore district. In proportion to population also, Bangalore district returned the highest rate (3.57). The next higher rate (2.14) was returned for the Kolar district. Death-rates lower than 1.00 per mille of population were returned for Tumkur and Chitaldrug districts.

21. Fifty-six towns reported a total of 1,951 deaths as against 2,986 from 65 towns in 1921. The highest death-rates were returned for Sidlaghatta (49.23), Hunsur (40.55), Subbele (35.76) and Channarayapatna (33.81). Seven other taluk headquarter towns returned a rate of between 12.27 in Chikballapur and 20.15 in Shikarpur.

22. As usual, the measures adopted for combating the disease were evacuation, disinfection and inoculation.

23. No systematic rat-destruction operations were undertaken by any of the local bodies except in the mining area on the Kolar Gold Fields. As an emergency measure, a limited number of rat-traps were distributed in Mysore City for use in houses in the affected localities. Very few Municipalities have yet framed and adopted suitable bye-laws for enforcing rat-proof conditions in houses, shops, godowns and grain-markets. One other matter that requires more adequate attention on the part of the local bodies is the stocking or the timely replenishing of disinfectants, in conformity with the rules issued under Government Order No. G. 21371-402-San. 101-17-12, dated the 25th March 1919.

24. The inoculations performed totalled 80,416 as against 75,714 in the preceding year. The largest number of inoculations, aggregating to 35,698, was done in the Kolar district. Out of this, the Assistant Surgeon of Chikballapur inoculated as many as 14,759 persons. No untoward results among the inoculated were reported.

25. The admissions for plague into the epidemic diseases hospitals and the results of treatment were as follows.—

Place	Admissions	Recoveries	Percentage of recoveries to admissions
Bangalore City	186	91	48.92
Mysore City	36	7	19.75
Kolar Gold Fields	..	..	..



## INFLUENZA.

26. As in the preceding year, the prevalence of influenza was reported from all the districts, the out-breaks, however, being sporadic in character and occurring in scattered localities at different periods. The disease was of a mild type and attended with no complications. The total number of deaths reported under this head during the year was 103. The Bangalore and Mysore Cities and the Kolar Gold Fields area respectively returned 5, 2 and 25 deaths.

27. The usual medical and other relief measures were reported to have been adopted in the affected localities.

## FEVERS.

28. The number of deaths registered from fevers was 49,859 as against 40,091 in 1921, the death-rates being 6.97 and 6.84 respectively. The mean ratio for the preceding five years was 8.62. The largest number of deaths (11,826) was recorded during the quarter ending December and the fewest (8,602) during the quarter ending June. The death-rate was lower than the quinquennial mean in all the districts. The highest rate for the year (10.18) was returned for Hassan district and the lowest for Mysore district (4.45).

29. The towns returned 4,632 deaths from fevers, as against 5,991 in 1921, the mortality rates being 6.08 and 7.78 per mille respectively. The highest rates were returned for Alur (86.19), Nonavinkere (76.05) and Holavanahalli (54.51). Six other towns returned a rate exceeding 20 per mille. The lowest rates were returned for Mugur (2.8), Maddagiri (5.8) and T. Narsipur (1.26). Seven other towns returned a rate lower than 2.00 per mille. The deaths from fevers in proportion to population returned for district headquarter towns are shown below arranged in the order of the greatest prevalence of fevers as indicated by the recorded rates:—Hassan (12.23), Kolar (8.60), Chikmagalur (6.56), Chitaldrug (5.52), Bangalore (4.16), Shimoga (3.84), Kolar Gold Fields (2.20), Mysore (1.70) and Tumkur (1.54).

30. As usual the oiling of pools, filling in of disused wells and such other measures continued to receive some amount of attention. In the Mysore City the filling up of Purniah's Nalla behind the Railway Station and of Col. Purchase's Nalla behind the Karohatti was under progress. Besides this, several disused wells were covered over.

A special Malarial Inspector was entertained in the Bangalore City during the year for anti-malarial and anti-mosquito operations. The experiments begun in 1921 to test the larvicidal powers of various kinds of fish were continued. Out of 98 wells into which live fish were introduced, 59 or 60 per cent showed no larvæ after a few days. Endeavour will be made to employ on an extended scale, during the coming years, live fish as a means of restricting mosquito infection in the worst affected localities in the City. Portions of the III A and B, VII and VIII divisions including Seshadripuram Extension, Lal-Bagh Road, Sampige tank bed and its surrounding gardens and a portion of Chamarajpet were during the year surveyed for breeding places of mosquitoes and the results noted down for taking further suitable action.

## RELAPSING FEVER.

31. Relapsing fever prevailed in a sporadic form in every district, the infection being confined to a few villages at a time. The out-breaks occurred almost exclusively among the Panchama community. With a view to ensure the adoption of proper precautionary measures, circular instructions were issued in regard to the necessity (i) for the exercise of special vigilance in detecting first cases (ii) for adopting measures aiming at delousing person and effects and securing the general sanitation of the affected locality and (iii) for the administration of the specific treatment, viz., intravenous injection with neo-salvarsan.

The reports received during the year gave a total of 2,437 attacks with 812 deaths from relapsing fever. The intravenous injections given numbered 807.

## DYSENTERY AND DIARRHŒA

32. The number of deaths registered under dysentery and diarrhœa was 3,083 as compared with 2,667 in 1921, the annual ratios being 0.52 and 0.45 respectively.

The quinquennial mean was 0·68. The largest number of deaths from these causes occurred during the month of December. The highest death-rate was returned from Tumkur district (0·65).

33. Sixty-eight towns returned a total of 1,036 deaths from dysentery and diarrhoea as against 893 deaths from seventy-four towns in 1921. The diseases were largely prevalent in Nonavinkere (15·46) and Honnavalli (6·26.) The cities of Bangalore and Mysore returned 195 and 193 deaths from dysentery and diarrhoea with ratios of 1·65 and 2·36 respectively per mille of population.

34. The scheme for the systematic examination—chemical as well as bacteriological—of the rural water-supplies continued to be in force. Only 85 samples, however, are reported to have been received at the Public Health Institute for analyses of which 29 were pronounced fit for potable purposes.

#### RESPIRATORY DISEASES.

35. Under respiratory diseases, 2,197 deaths were registered with a mortality rate of 0·37 as compared with 2,209 and 0·38 per mille respectively in 1921. Of the recorded deaths, 1,279 occurred in 43 towns. The highest death-rates were returned for Bangalore and Mysore Cities, the ratios being 5·26 and 4·23 respectively.

36. There were 151 deaths from consumption in the Mysore City with a mortality-rate of 1·8 per 1,000 of population as against 148 during 1921, and against the average of 165·8 during the past quinquennium. On the Kolar Gold Fields among 244 deaths returned under respiratory diseases 90 were due to consumption. The deaths in the Bangalore City numbered 301 equivalent to a ratio of 2·5 per mille of population, or the incidence was nearly one-and-a-half times that in the Mysore City. It is significant that out of the total number, 207 or 68·7 per cent occurred among females. One hundred and thirty-eight or 66·6 per cent of the deaths among females were returned for the age period 15-30. Steps should be taken to minimise the enormous loss of life that takes place annually from this cause in the city.

37. Of the 111 patients that sought admission as in-patients in the Princess Krishnajammanni Sanatorium during the year, 7 were reported to have been cured, 10 died and the rest were discharged.

#### INJURIES.

38. The deaths returned under this cause aggregated to 1,090 against 1,313 in 1921, the death-rate being 0·18 against 0·22 in the preceding year. Of the recorded deaths under this head 208 were cases of suicide, 709 were the results of accidents and 173 were returned as due to snake bite, etc., as against 306, 841 and 166 respectively in the preceding year. The mortality for towns was 254 representing a ratio of 0·33 as against 0·48 in 1921. The number of deaths from this cause returned for Kolar Gold Fields was 81 as against 90 in the preceding year, of which 71 are reported to have been due to mining accidents as against 65 in 1921.

#### ALL OTHER CAUSES.

39. Under this head 27,721 deaths were recorded against 27,230 in 1921 yielding annual ratios of 4·73 and 4·65 per mille respectively.

40. In towns the deaths from "all other causes" amounted to 8,170 corresponding to an annual ratio of 10·61 per mille of population as compared with 8,353 or 10·85 per mille in the preceding year. The highest rate was as usual recorded for Nonavinkere (54·12). Five other towns also recorded a death-rate exceeding 20 per mille.

#### CENTRAL SANITARY BOARD.

41. The constitution of the Board remained the same as in the preceding year except that the place of Secretary fell vacant from the 11th July 1923 on account of the separation of the Public Health Institute from the administrative control of the Sanitary Commissioner and the abolition of the post of the Senior Assistant Director of the Institute who was the Secretary to the Board.

During the year the Board considered and passed resolutions on two schemes estimated to cost Rs. 88,601. The schemes related to the improvement of drainage

in the Davangere and Hassan towns. A third scheme relating to the drainage and other improvements in Seringapatam town estimated to cost Rs. 49,800 was under the consideration of the Board.

42. The expenditure incurred during the year by the Improvement Trust Board, Mysore City, aggregated to Rs. 61,188. The work consisted of laying pipe sewers in II, III, IV, V, Nazarbad and Ittigegud drainage areas, laying out new extensions, improvement of roads and storm] water drains and filling up insanitary ditches etc.

43. The City Improvement Trust Board, Bangalore, incurred an expenditure of Rs. 96,068 over works relating to the construction of new drains, repairs of drains, improvement to buildings, construction of New Market and other works of a sanitary nature.

44. The total outlay in the Public Works Department during the year on works of a sanitary nature was Rs. 2,62,233.

45. An aggregate expenditure of Rs. 59,602 was incurred by Municipalities chiefly on improvement of drainage, removal of congestion, filling up insanitary pits and construction of public latrines.

#### VILLAGE SANITATION.

46. The provisions of the Village Sanitation Regulation were introduced during the year into 349 villages, making a total of 12,967 villages up to the end of 1922. Separate places for storing manure were set apart in 736 villages, the total up to the end of 1922 being 12,010.

47. Eighteen villages were newly brought under Village Improvement Committees during the year, making a total of 15,989 villages under the operation of the Village Improvement Scheme at the close of the year 1922. The works undertaken were estimated to cost Rs. 1,65,877-9-5 including grants-in-aid by Government, contribution by raiyats and free labour supplied. The main item of sanitary work was, as usual, the construction or improvement of wells, the number newly sunk during the year being 183 and those improved 154 making a total of 337 wells. Village extensions were formed in 37 of the villages. The villages shifted to healthier sites numbered 13. Minor improvements such as clearing of lantana and prickly-pear, filling up hollows and ditches and the general tidying up in other ways of villages are reported to have received some attention.

#### IMPROVEMENT OF THE MALNAD.

48. For want of budget grants, no works of a sanitary nature were newly undertaken under the Malnad Improvement Scheme during the year. The distribution of quinine was however continued. The special temporary staff of Vaccinators performed 8,428 vaccinations of which 7,571 were successful.

#### MEDICAL INSPECTION OF SCHOOL CHILDREN.

49. Three hundred and sixty four schools were inspected in the various places where dispensaries are stationed and 33,841 children were directed for treatment of whom 29,708 are reported as cured. The most common ailments noticed were chronic conjunctivitis, skin diseases, enlargement of spleen and nose and throat affections.

#### FAIRS AND FESTIVALS.

50. During the latter part of the year, Government were pleased to pass orders approving the rules proposed by this department for regulating sanitary arrangements on the occasion of jattras and car festivals. In conformity with the rules, arrangements have been made for the maintenance of standing lists showing the major and minor jattras in each district, date of commencement, duration, the number of persons and cattle likely to congregate and the essential sanitary arrangements required.

The usual sanitary arrangements, such as the entertainment of temporary conservancy staffs, erection of temporary latrines and the adoption of precautions to prevent the fouling of drinking water-supplies are reported to have been adopted

on occasions of the jattras and car-festivals that took place during the year. The fairs and festivals of considerable importance were those held at Melkote, Nanjan-gud, Nandi, Chunchunkatte and Thirthahalli.

#### ROUTINE SANITARY WORK IN THE MUNICIPAL AND RURAL AREAS.

51. The total number of house-to-house inspections carried out by the sanitary staff in the Bangalore City was 9,112 against 6,102 in the preceding year. In 3,116 premises remediable sanitary defects were found. Of 2,092 notices issued under different sections of the Municipal Regulation the terms of 1,863 were complied with. In 1,067 cases prosecutions were instituted against 316 in the preceding year, the amount of fines realised therefrom being Rs. 857 against Rs. 384-8-0 in 1921.

In the Mysore City, 6,500 houses were visited by the Health Officer and the Sanitary Inspectors for inspections for internal sanitation. For 1,410 cases where defects were found notices were issued in 666 and the terms complied with in 457 cases. Thirty-three prosecutions were instituted of which one ended in conviction. The amount of fines realised was Rs. 10.

On the Kolar Gold Fields, 245 notices were served for offences under the Sanitary Board bye-laws. Out of these, in 121 cases prosecutions were launched resulting in conviction in respect of 65 offences. Twenty-two were acquitted and 18 were pending at the close of the year. The amount of fines realised was Rs. 244-12-0.

52. The adoption of a similar routine procedure in all other Municipal towns as well as in the villages was being urged upon the attention of local bodies from time to time with appreciable result. Monthly statements of the progress made in this direction were obtained and systematically scrutinised in this office. The statements show that the town and taluk Sanitary Inspectors together issued a total of 7,637 notices which were also backed by repeated personal persuasion. The terms of most of the notices were complied with only a few cases having to be put up for prosecution. Over 90 per cent of the prosecutions resulted in acquittal, the parties being granted time by the Magistrates and having complied with the terms of the notices in the interval.

#### SANITARY POLICY IN MUNICIPALITIES.

53. In the course of the Sanitary Commissioner's tour in the districts of Tumkur, Kolar, Mysore, Hassan, Shimoga and Kadur during the year, it was observed that so far as public health is concerned there is urgent need for the local bodies formulating and steadily pursuing a definite policy and line of action. Very few of the Municipalities had any programme of works aiming at the improvement of drainage, and removal of congestion or the furtherance otherwise of the general sanitary conditions in the local area.

The introduction of the daily conservancy system which is long overdue has not been attempted in any Municipality, perhaps partly owing to the initial difficulties involved in grappling the allied matters concerning the imposition of a sanitary cess or tax, the provision of conservancy lanes, etc. Essential bye-laws have been framed in very few of the Municipalities. House construction both in existing towns and extensions is not properly regulated by means of suitable bye-laws, prescribing conditions as to the structure of walls, foundation and roof, open space to be provided in front, at rear and at the sides of new domestic buildings, suitability and strength of floor to resist rains, adequacy of ventilation arrangements and the construction of privies, ash pits, drains and cattle sheds.

From information obtained it is found that only 41 towns have been surveyed, and that out of these, plans have been furnished to the Municipalities concerned in only 19 cases. Unless each Municipality is in possession of such plans, it will hardly be in a position to carry out through its own agency such annual improvements as it ought to undertake without waiting for a grant or subsidy from Government. The question of requiring every Municipality which does not possess block maps to arrange to have a town survey carried out deserves very early consideration.

## GENERAL REMARKS.

54. Mr. A. K. Pani, D.P.H., etc., held the appointment of Sanitary Commissioner and Ex-Officio Director of Public Health Institute till the 11th July 1922 when, consequent on the retrenchments ordered in the Sanitary Department and the abolition of the post of full-time Sanitary Commissioner, he handed over charge of the office to Dr. H. B. Mylvaganam, F.R.G.S., (Engl.), Senior Surgeon. The former visited and inspected the Sanitation and Vaccination in 11 towns and 4 villages and the latter in 55 towns and 57 villages making a total of 66 towns and 61 villages for the year. As usual detailed notes of inspection embodying practical recommendations were furnished for the consideration of and action by the local bodies.

55. In their order No. L. 7567-82—San. 55-21-1, dated the 26th June 1922 Government passed final orders on the proposals of the Special Finance Committee in regard to the retrenchments proposed in the Public Health Department. The items retrenched were the appointment of full-time Sanitary Commissioner, the posts of District Health Officers and Deputy Inspectors of Vaccination. A new cadre of Chief Sanitary Inspectors on Rs. 100-10-150 for districts was created to take the place of District Sanitary Officers and to work directly under the orders of the Presidents of District Boards. The net savings secured under these retrenchments amounted to Rs. 49,256 per annum. Proposals for the appointment of Chief Sanitary Inspectors for districts, selected from among the Senior Sub-Assistant Surgeons and Senior Deputy Inspectors of Vaccination, were under consideration during the year.

56. The District Health Officers did, as usual, a fair amount of inspection work, visiting a total of 577 towns and villages during the year.

57. A noteworthy and auspicious event of the year was the visit to the State of His Royal Highness the Prince of Wales in January 1922. The Sanitary Commissioner assisted by the Health Officers concerned personally supervised the sanitary arrangements in the Royal Camps.

OFFICE OF THE SANITARY  
COMMISSIONER, IN MYSORE,  
Dated Bangalore, 13th June 1923.

B. MAHOMED USMON,  
*Offg. Sanitary Commissioner,*  
*Mysore Government.*

APPENDICES.

ANNUAL FORM No. I.

Births registered in the districts of the Mysore State during the year 1922.

SAN. B.

1	2	3			4			5			6	7	8	9			10
		Population according to Census of 1921			Number of births registered			Ratio of births per 1,000 of population						Mean ratio of births per 1,000 during previous five years			
No.	District	Males	Females	Total	Males	Females	Total	Males	Females	Total	Number of males born to every 100 female born	Excess of births over deaths per 1,000 of population	Excess of deaths over births per 1,000 of population	Males	Females	Total	Ratio of births per 1,000 of the population for the past year
1	Bangalore ..	4,63,763	4,43,152	9,96,935	8,673	8,092	16,765	18'70	18'26	18'48	107'18	...	0'96	18'28	18'46	18'37	16'46
2	Kolar ...	4,04,961	3,87,378	7,92,339	8,688	3,370	17,058	21'45	21'61	21'53	108'80	3'21	..	19'78	19'53	19'66	18'28
3	Tumkur ..	3,94,827	3,78,225	7,73,122	7,711	7,572	15,283	19'53	20'02	19'77	101'84	7'03	..	20'62	20'58	20'61	18'92
4	Mysore ..	7,02,931	7,00,388	14,03,319	10,575	9,639	20,214	15'04	13'76	14'40	109'71	3'72	..	14'65	13'39	14'02	14'18
5	Hassan ..	2,92,249	2,91,711	5,83,960	4,857	4,698	9,555	16'62	16'10	16'36	103'38	1'51	...	14'34	13'31	14'07	14'69
6	Shimoga ..	2,57,150	2,35,410	4,92,560	4,722	4,511	9,233	18'36	19'16	18'74	104'67	3'98	...	17'21	17'63	17'41	17'92
7	Kadur ..	1,74,615	1,58,923	3,33,538	2,789	2,648	5,437	15'97	16'66	16'30	105'32	0'98	..	14'63	15'04	14'83	14'38
8	Chitaldrug ..	2,94,955	2,79,224	5,74,179	5,919	5,484	11,403	20'06	19'64	19'86	107'93	94'83	..	17'91	17'18	17'53	17'83
4	Total for the province ..	29,85,541	28,74,411	58,59,952	53,934	51,014	1,04,948	18'06	17'75	17'91	105'72	3'38	..	17'25	16'74	16'99	16'45

## ANNUAL FORM

Statement of births and deaths registered in each town and Rural circle of the  
together with the principal Sanitary defects of each circle

Serial No.	District and Town or Rural Circle	Population (Census 1921)			Births		Number of deaths registered			Number of deaths of males to every 100 deaths of females	Deaths per 1,000		
		Males	Females	Total	Total numbers	Birth ratio per 1,000 of population	Male	Female	Total		Cholera	Small-pox	Plague
1	2	3			4		5			6	7		
<b>BANGALORE.</b>													
1	Bangalore T. C. ..	68,911	54,646	118,556	9,444	29 05	1,921	1,885	8,906	101.91	..	14	1 91
2	Channarayana do ..	6,054	6,799	11,946	817	26 76	67	68	180	106 85	..	68	4 84
3	Dodballapur do ..	3,865	8,793	7,588	173	22 64	64	42	96	128 57	..	..	96
4	Devanhalli do ..	2,712	2,875	5,387	101	18 75	92	185	228	67 65	..	..	18 00
5	Closetep do ..	2,887	2,496	5,652	59	10 63	40	35	76	114 29	..	..	..
6	Kankanhalli do ..	2,997	2,829	5,729	106	18 40	21	49	64	48 84	..	..	..
7	Anekal do ..	3,188	3,148	6,326	144	22 76	68	57	120	110 53	..	95	1 26
8	Tyranogondlu do ..	1,765	1,626	3,391	101	29 79	85	48	68	162 17	..	..	..
9	Nelamangala do ..	1,736	1,618	3,354	147	43 88	42	35	77	120 00	..	..	80
10	Vadgenhalli do ..	1,898	1,437	3,380	39	28 69	51	33	69	104 31	..	..	5 09
11	Magadi do ..	2,595	2,506	5,133	71	13 83	26	27	53	95 30	..	..	..
12	Hoskote do ..	2,325	2,207	4,532	95	20 98	85	85	183	115 80	..	..	15 89
13	Saryapur do ..	1,370	1,269	2,639	79	29 92	60	62	122	96 77	..	7 87	3 88
14	Yellibanka do ..	1,297	1,261	2,558	78	30 49	10	14	30	114 29	..	..	3 89
15	Subbele do ..	870	864	1,734	62	29 99	47	47	104	114 89	..	..	86 76
16	Bangalore District R. C. ....	364,492	354,359	718,851	11,799	16 23	6,584	5,315	12,899	130 72	..	28	8 52
<b>Total of District</b>		468,788	443,192	906,985	16,765	18 49	9,227	8,407	17,634	119 75	..	28	8 35
<b>KOLAR.</b>													
17	Kolar Gold Fields T. C. ..	47,487	40,195	87,682	3,659	41 73	1,277	1,000	2,277	127 70	..	10	0 8
18	Kolar do ..	6,818	6,550	13,368	939	25 28	130	217	45 92	..	..	..	0 7
19	Sidlaghatta do ..	1,888	1,530	3,418	94	25 43	118	189	267	84 96	..	..	49 83
20	Mulbagal do ..	2,850	2,311	5,161	88	14 84	25	19	45	186 84	..	..	..
21	Chikkaballapur do ..	5,285	5,196	10,481	192	18 41	126	160	276	84 00	..	..	12 27
22	Malur do ..	1,908	1,871	3,779	130	34 92	66	95	151	58 95	..	..	68 18 00
23	Srinivaspur do ..	1,674	1,548	3,219	50	21 18	..	..	..	..	..	..	..
24	Bowringpet do ..	3,147	3,746	5,898	164	24 13	60	81	81	161 99	..	..	..
25	Gornbidnur do ..	373	370	743	29	49 34	28	25	63	132 00	..	..	..
26	Chintamani do ..	8,114	8,047	16,161	139	22 40	71	68	139	104 41	..	..	4 92
27	Gudlunda do ..	1,207	1,249	2,450	43	17 55	21	4	25	625 00	..	..	..
28	Bagepalli do ..	868	863	1,731	118	68 73	21	15	36	140 00	..	..	..
29	Kolar District R. C. ....	327,888	318,542	646,538	12,015	18 58	5,626	5,333	10,959	105 50	..	..	..
<b>Total of District</b>		404,961	387,878	792,839	17,658	21 53	7,507	7,009	14,516	107 10	..	17	1 91
<b>TUMKUR.</b>													
30	Tumkur T. C. ....	7,599	6,547	14,246	159	10 74	94	65	159	144 09	..	..	0 82
31	Chiknayakanhalli do ..	3,275	3,167	6,442	65	10 10	89	44	92	65 86	..	..	1 6
32	Gubbi do ..	2,708	2,590	5,298	95	16 15	81	61	92	120 00	..	..	..
33	Maddegur do ..	2,800	2,549	5,349	15	9 92	5	8	6	156 07	..	..	1 9
34	Sars do ..	3,624	2,772	6,396	188	28 77	92	27	69	116 92	..	..	1 6
35	Tiptur do ..	2,244	2,067	4,311	96	22 04	89	81	70	125 81	..	..	..
36	Pavagada do ..	1,276	1,269	2,529	29	26 06	29	28	45	98 55	..	..	4 0
37	Koratagere do ..	1,580	1,448	3,028	49	16 13	17	17	34	100 00	..	..	..
38	Turuvekere do ..	998	948	1,946	34	17 56	19	16	35	136 75	..	..	..
39	Honnavalli do ..	1,195	1,022	2,217	200	33 57	64	63	147	186 88	..	..	..
40	Kysandra do ..	1,022	1,013	2,035	90	9 88	8	6	11	88 88	..	..	..
41	Kuniga do ..	1,561	1,488	3,044	46	14 78	17	24	41	70 88	..	..	4 86
42	Hunur do ..	1,013	1,053	2,065	296	14 84	92	96	128	96 88	..	..	2 90
43	Holvanhalli do ..	1,109	1,074	2,183	330	161 17	104	78	176	338 72	..	..	4 6
44	Bellsari do ..	938	965	1,903	179	24 31	41	48	69	85 42	..	..	..
45	Nonyankere do ..	777	776	1,552	489	262 66	180	99	299	131 31	..	..	64
46	Kadaba do ..	798	828	1,621	..	..	..	..	..	..	..	..	..
47	Hullyar do ..	1,017	968	1,985	171	86 15	60	52	119	215 98	..	..	5 0
48	Tumkur District R. C. ....	360,888	34,545	705,568	12,789	18 11	4,800	4,000	8,802	167 55	..	..	1 7
<b>Total of District</b>		394,397	378,225	772,622	15,283	19 77	5,180	4,718	9,898	108 78	..	17	1 8
<b>MYSORE.</b>													
49	Mysore T. C. ....	48,788	40,169	88,957	3,336	27 93	929	667	1,796	119 57	..	94	44
50	Serangapatam do ..	8,614	8,803	7,217	174	20 11	67	67	134	100 00	..	..	14
51	Malavalli do ..	3,776	3,624	7,400	178	24 15	64	46	100	117 89	..	..	1 21
52	Hunsur do ..	2,312	2,151	4,463	99	21 96	184	141	276	95 04	..	..	33 40 55
53	Nanjangud do ..	2,756	2,537	5,293	173	28 08	41	41	82	100 00	..	..	3 82
54	Channarayana do ..	3,501	3,438	6,934	312	45 00	51	60	111	86 00	..	..	1 4
55	Bannur do ..	2,256	2,202	4,458	65	14 59	13	15	28	86 87	..	..	..
56	Mandya do ..	2,496	2,391	4,887	96	18 64	47	57	104	69 44	..	..	7 16
57	Gundlupet do ..	3,351	3,249	6,604	90	19 59	95	95	95	267 74	..	..	1 09
58	Periyapatna do ..	1,594	1,574	3,168	33	10 81	29	19	41	116 60	..	..	1 89
59	Talke do ..	2,028	2,077	4,105	43	10 20	10	5	15	200 00	..	..	..
60	Yellandu do ..	1,822	1,871	3,698	17	13 79	85	91	56	166 67	..	..	4 88
61	Nagamangala do ..	1,785	1,789	3,574	65	16 93	19	11	30	178 78	..	..	..
62	Melkote do ..	3,145	3,163	6,307	22	3 43	81	93	50	79 41	..	..	8 01
63	Saligrama do ..	1,968	1,921	3,889	..	..	..	..	..	..	..	..	..
64	Yadotore do ..	1,119	986	2,105	16	7 59	18	17	60	76 87	..	..	9 92
65	Madur do ..	1,468	1,383	2,851	59	20 95	60	12	82	166 67	..	..	..
66	Mugur do ..	1,891	1,789	3,680	63	14 97	10	18	38	76 99	..	..	..
67	T Narasipur do ..	2,405	2,363	4,768	29	6 71	6	4	10	150 00	..	..	..
68	Krishnarajpete do ..	1,593	1,636	3,226	78	25 68	91	90	65	150 00	..	..	..
69	Fronch Rocks do ..	3,287	1,120	4,407	73	33 40	88	99	65	111 76	..	..	16 69
70	Hegeaddevanahole do ..	892	610	1,502	31	24 98	19	17	36	108 97	..	..	1 84
71	Mysore District R. C. ....	612,504	614,748	1,227,252	16,147	18 15	5,078	5,441	11,314	108 97	..	94	1 84
<b>Total of District</b>		702,981	700,988	1,403,969	20,914	24 40	7,666	7,829	14,988	104 70	..	95	1 40

No. II.

State of Mysore and the receipts and expenditure in each circle from, under conservancy and the measures taken to remedy them during the year 1922.

of population from							Mean ratio of deaths per 1,000 during previous five years			Net receipts of each circle from conservancy	Net expenditure on each circle on conservancy	Principal sanitary defects of circle			Measures taken for sanitary improvements of circle
Fever	Dysentery and Diarrhoea	Remittent diseases	Injuries	All other causes	Males	Females	Total	Males	Females			Total	In drainage	In water-supply	
7	7	7	7	7	8	8	8	8	8	8	9	10	11	12	
4-16	1-65	8 28	07	18 92	80 66	84 60	82 10	41 82	45 69	49 97					
3-95	1-76	51	04	11 09	11 06	10 87	10 87	38 26	38 91	36 10					
9 96	1-18	38	13	9 77	14 01	11 25	12 65	31 89	32 65	32 05					
15-78	1 67	74	00	11 14	88 98	60 84	42 98	32 98	31 26	39 10					
10 81	0-85	36	00	1 98	14 00	12 98	19 61	36 41	39 62	37 97					
8 25	0 85	17	1 37	7 15	15 28	14 31	11 21	23 75	32 34	25 55					
9-96	1-11	16	16	5 87	19 79	18 18	16 87	29 59	29 68	29 69					
11-60	0-80	30	00	5 01	19 68	14 14	17 11	37 29	31 42	34 87					
8-95	0-89	1 49	00	11 98	21 19	21 63	22 96	58 21	08 87	63 86					
12 60	0 19	68	00	5 68	26 94	20 69	23 66	34 96	36 08	35 22					
5-48	0-85	19	00	9 79	10 29	10 35	10 38	50 44	49 34	49 68					
17 65	0-22	65	1 10	4 85	49 15	38 61	40 88	27 72	29 87	28 78					
18-94	0-38	88	08	15 58	48 60	48 82	46 21	26 47	30 66	26 49					
8-91	0 00	78	00	5 64	19 34	11 11	11 73	31 03	36 55	38 55					
19 03	0 19	44	00	5 19	65 63	54 40	60 00	22 64	27 49	24 97					
8 65	0-43	44	00	9 85	18 06	16 41	17 25	22 18	22 62	22 41					
5-68	0-58	1 09	18	5 89	19 89	18 37	19 44	24 67	25 28	24 99					
2-20	2-98	1 67	03	18 18	24 68	24 88	25 98	40 78	42 14	41 85					
8 60	1 49	1 34	75	3 74	12 76	19 85	16 32	27 68	28 95	28 98					
14 06	0 00	00	64	6 53	62 60	78 79	69 68	38 93	43 06	40 22					
7 05	0 00	00	18	7 00	9 09	8 78	7 93	47 18	41 99	44 22					
5 87	0 29	00	19	8 34	24 07	29 00	26 46	43 28	44 73	49 95					
13 49	0 00	27	7 40	9 95	59 60	50 60	39 95	28 88	34 68	24 28	3,011				
											4,799				
10 69	0 27	00	00	9 68	15 68	11 99	16 74	84 37	35 69	31 54					
22 80	0 00	00	21 7	3 80	28 81	28 78	24 77	47 75	49 98	48 37	491				
12 84	0 00	00	32	6 49	22 80	22 81	22 65	45 51	44 94	64 92					
5 71	0 00	62	00	8 67	17 40	3 28	10 20	44 19	44 70	44 40	206				
8 16	0 00	00	58	12 23	24 83	17 58	20 98	29 33	30 37	29 80					
8-74	0-59	0-41	0-83	6 16	18 64	18 09	18 98	25 84	25 80	26 68					
1-54	8 65	07	00	8 89	19 87	9 78	11 16	41 54	45 67	48 69					
6 34	1 24	00	00	4 35	11 69	18 94	15 78	28 71	29 54	28 68					
9 03	0 00	00	19	9 50	11 47	19 11	11 76	44 58	44 51	44 89					
6 68	0 00	00	78	1 94	1 10	1 10	1 55	80 95	84 69	88 76					
6 97	0 35	00	18	9 85	11 88	9 74	10 54	28 73	29 16	29 08					
8 19	0 46	00	00	7 66	17 89	18 00	16 24	71 67	86 94	79 20					
5 14	0 00	40	00	9 65	17 94	18 85	17 78	86 90	86 15	86 51					
4 95	0 30	00	00	9 97	10 78	11 74	11 23	41 63	44 06	43 81					
8 89	2 07	00	04	6 23	19 18	16 97	16 08	34 98	36 88	36 89					
27 12	6 26	00	0 09	9 86	70 96	62 41	61 88	50 98	51 99	51 44					
1 47	0 00	00	00	3 93	4 69	5 92	5 40	47 60	51 51	49 50					
8 17	0 82	83	00	6 25	10 90	16 18	18 47	128 04	184 44	181 20					
50 96	4 86	00	0 39	26 66	30 89	31 95	31 04	51 77	47 48	49 85					
54 61	1 89	00	0 46	32 45	31 89	67 97	80 16	79 20	67 00	73 21					
17 91	0 00	00	63	34 45	43 94	49 74	48 90	76 17	71 69	73 64					
78 01	15 46	00	1 39	64 19	167 81	137 74	147 55	74 54	84 08	79 28					
48 83	0 50	00	00	11 08	69 00	58 79	56 43	47 97	45 78	46 69					
6 39	0 62	04	16	4 39	11 84	11 63	11 76	26 04	27 68	26 85					
6-90	0-56	0-04	0-17	4 76	19 99	19 47	19 74	97 41	99 06	99 24					
1 70	2 96	4 29	15	12 22	81 45	91 88	91 89	66 89	69 98	69 11					
5-27	0 41	00	00	12 75	16 54	19 59	18 57	91 52	91 62	91 71	101		4,665		
8 00	1 76	0 18	54	6 76	14 80	19 69	18 51	17 94	16 48	16 18					
15 94	0 90	00	00	4 79	67 96	45 69	41 63	66 16	62 16	65 27					
3 15	1 07	0 14	95	4 68	10 92	11 09	11 00	22 92	26 04	28 68					
7 93	0 14	00	63	7 91	14 71	17 45	16 00	64 18	60 88	59 35				8,130	
9 29	0 37	00	00	6 80	8 76	6 81	6 29	30 36	30 95	29 06					
6 55	1 33	0 20	00	6 14	18 69	28 65	31 89	19 75	24 26	18 51				669	
1 26	1 63	0 65	00	2 22	7 66	8 19	5 44	29 69	36 68	36 25					
7 40	0 32	00	00	8 87	14 84	18 07	18 19	20 69	21 86	21 09					
2 4	0 00	00	00	3 16	8 21	9 41	8 64	32 05	16 70	16 81					
1 38	0 00	1 02	00	27	7 65	19 91	11 98	15 16	22 45	26 52					
6 91	0 39	0 00	00	1 15	30 95	4 82	8 44	15 73	24 61	18 97					
9 35	0 16	0 16	00	1 74	6 68	9 17	7 93	18 70	19 67	19 19				864	
5 70	0 00	0 71	00	4 76	11 80	17 28	14 25	86 66	86 69	86 06					
4 39	0 00	0 00	00	5 59	18 49	9 00	11 86	47 76	43 05	45 01				235	
1 26	0 38	0 00	00	6 98	6 56	7 47	6 43	5 77	6 90	6 53					
1 95	0 00	0 00	00	8 4	9 49	1 69	9 10	15 79	17 26	16 53					
9 45	0 00	0 49	00	9 61	18 18	19 65	19 71	28 30	25 97	23 05					
6 99	2 91	1 19	00	11 22	65 64	19 64	20 85	85 64	40 08	37 74					
6 44	0 31	0 00	00	7 35	80 06	97 67	99 00	47 93	56 59	52 37					
4 67	0 30	0 15	0 26	9 91	9 60	9 60	9 71	13 61	18 27	19 08					
4 46	0 44	0 40	0 16	6 57	10 90	10 45	10 68	90 91	19 69	90 29					

There is no definite system. In most towns drains have been constructed without proper level, without arrangements for a proper outfall and for effective disposal of sewage.

Drinking water wells are necessary both in town and rural areas. Those that exist should be properly protected.

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Sanitary improvements of Municipalities etc being considered as funds permit. Effort is also being made to secure sanitary improvements by systematically enforcing the sanitary legislation and rules in force in the local areas.



## ANNUAL FORM

Serial No.	District and Town or Rural Circle	Population (Census, 1921)			Births		Number of deaths registered			Number of deaths of males to every 100 deaths of females	Deaths per 1,000		
		Males	Females	Total	Total numbers	Birth ratio per 1,000 of population	Males	Females	Total		Cholera	Small-pox	Plague
1	2	3			4		5			6	7		
<b>HASSAN.</b>													
73	Hassan T. C. . .	4,268	8,828	8,096	276	46.44	152	166	318	91.56	..	26	7.63
73	Hole-Narsapur do ..	3,447	3,229	6,679	198	29.65	127	182	269	96.91	..	..	5.89
74	Arkaligudi do ..	2,321	2,187	4,508	..	..	..	..	..	..	..	..	..
75	Belur do ..	1,422	1,487	2,899	98	34.27	40	39	79	102.67	..	25	8.6
76	Arakere do ..	2,829	1,891	4,720	96	20.33	20	20	40	100.00	..	..	..
77	Channarayana do ..	1,564	1,542	3,106	68	21.25	108	108	216	104.86	..	32	33.81
78	Banaswara do ..	1,456	1,308	2,764	46	31.87	10	10	20	100.00	..	..	..
79	Konanur do ..	1,242	1,141	2,383	86	35.67	55	54	109	101.55	..	..	18.47
80	Saklespur do ..	1,247	1,023	2,270	28	12.38	12	8	20	150.00	..	..	..
81	Haruhalli do ..	1,154	1,017	2,171	80	13.82	14	18	32	107.69	..	..	..
82	Grama do ..	944	954	1,898	..	..	..	..	..	..	..	..	..
83	Srazenabagola do ..	852	871	1,723	31	16.12	24	27	51	88.69	..	..	5.72
84	Elachadu do ..	632	598	1,230	..	..	..	..	..	..	..	..	..
85	Alur do ..	1,009	975	1,984	60	30.24	95	108	203	92.23	..	..	2.02
86	Hassan District R. C. . .	267,700	269,766	537,466	8,441	15.71	4,205	3,930	8,135	107.00	..	08	9.8
Total of District ..		292,249	291,711	583,960	9,555	16.36	4,862	4,605	9,467	105.68	..	04	1.85
<b>SHIMOGA.</b>													
87	Shimoga T. C. . .	7,995	7,095	15,090	238	15.77	148	136	279	105.14	..	..	3.71
88	Shikarpur do ..	2,205	2,161	4,366	83	19.01	69	46	115	150.00	..	..	20.15
89	Channagiri do ..	2,011	1,985	3,996	89	22.25	42	59	81	107.69	..	..	2.25
90	Honnah do ..	2,025	1,834	3,859	120	21.02	26	31	57	88.87	..	..	1.81
91	Nyanah do ..	1,547	1,562	3,109	34	26.17	24	27	51	100.00	..	..	6.23
92	Sager do ..	2,693	2,269	4,962	108	21.64	78	67	145	116.42	..	..	3.61
93	Bhadraavathi do ..	2,065	1,723	3,788	37	9.76	45	22	67	204.55	..	26	6.86
94	Tirthahalli do ..	1,852	1,454	3,306	65	19.48	32	34	66	94.12	..	2.40	..
95	Siralkoppa do ..	1,155	1,075	2,230	47	21.07	29	19	48	152.63	..	..	3.14
96	Kamsi do ..	1,039	1,039	2,078	49	23.00	20	23	43	96.96	..	..	5.63
97	Sorah do ..	755	737	1,492	23	14.84	23	13	36	175.92	..	67	..
98	Kallurkatti do ..	554	457	1,011	49	48.51	12	12	24	100.00	..	..	..
99	Shimoga District R. C. . .	231,147	211,923	443,070	8,242	18.60	3,476	3,081	6,557	112.23	..	16	1.54
Total of District ..		287,150	285,410	572,560	9,238	16.74	4,019	3,560	7,579	112.21	..	16	1.87
<b>KADUR.</b>													
100	Tarikere T. C. . .	4,222	3,576	7,798	258	32.82	203	181	389	111.60	..	13	15.92
101	Chikmagalur do ..	5,483	4,719	10,202	258	25.27	109	92	201	118.48	..	..	1.18
102	Bhur do ..	2,968	2,144	5,112	55	13.07	15	6	23	157.50	..	..	..
103	Kadur do ..	1,542	1,513	3,055	71	22.50	28	21	47	128.81	..	..	1.58
104	Srangari do ..	968	921	1,889	64	33.86	28	27	55	103.70	..	..	..
105	Narasimharajapura do ..	1,071	926	1,997	56	28.00	36	23	59	156.52	..	50	..
106	Ajjampur do ..	1,223	1,129	2,352	47	19.98	12	10	22	120.00	..	..	..
107	Sivani do ..	1,018	1,001	2,019	44	21.78	15	11	26	196.36	..	..	..
108	Mudgere do ..	702	576	1,278	52	40.69	16	10	26	150.00	..	..	..
109	Koppa do ..	519	399	918	15	18.66	8	14	22	120.00	..	..	..
110	Kadur District R. C. . .	155,689	142,079	297,768	4,518	15.17	2,162	2,092	4,254	103.94	..	01	7.1
Total of District ..		174,615	158,923	333,538	5,437	16.30	2,630	2,480	5,110	106.06	..	02	1.08
<b>CHITALDRUG</b>													
111	Davangere T. C. . .	8,978	7,993	16,971	690	40.66	165	158	323	104.43	..	1.53	12
112	Chitaldrug do ..	4,415	4,105	8,520	237	34.86	92	84	176	109.62	..	..	3.5
113	Harhar do ..	3,996	2,908	6,904	121	30.60	43	32	75	134.37	..	34	2.4
114	Turavanur do ..	3,270	3,166	6,436	83	9.63	16	24	40	66.67	..	..	..
115	Holakere do ..	1,548	1,536	3,084	81	25.44	11	19	30	91.67	..	..	..
116	Jogalur do ..	1,370	1,238	2,608	63	23.61	16	11	27	145.45	..	..	..
117	Molakalmuru do ..	1,716	1,643	3,359	135	40.18	28	27	55	103.70	..	5.68	..
118	Nayakanhatti do ..	1,401	1,303	2,704	45	16.64	18	18	36	100.00	..	..	..
119	Hiriyur do ..	1,804	1,812	3,616	57	21.79	29	17	46	170.59	..	1.58	..
120	Hosurga do ..	1,374	1,222	2,596	99	38.16	19	26	45	79.98	..	..	..
121	Malsambur do ..	1,123	1,054	2,177	63	31.24	10	16	26	82.50	..	..	9.2
122	Davasamudra do ..	608	607	1,215	80	24.69	24	20	44	120.00	..	..	..
123	Challakere do ..	1,323	1,201	2,524	61	24.12	24	11	35	215.18	..	..	..
124	Chitaldrug District R. C. . .	263,424	249,878	513,302	9,694	18.69	2,592	2,415	5,007	107.33	..	07	2.47
Total of District ..		294,955	279,224	574,179	11,403	19.86	3,027	2,871	5,968	107.62	..	07	2.43
Total of all Town Circles		402,364	367,545	769,909	21,571	28.01	9,108	8,455	17,563	107.73	..	24	3.53
Total of all rural Circles		2,583,177	2,506,866	5,090,043	68,377	16.38	35,090	32,507	67,527	107.73	..	19	1.37
Grand Total for the Province		2,985,541	2,874,411	5,859,952	104,948	17.91	44,123	40,962	85,090	107.73	..	19	1.53

No. II—concl'd.

of population from										Mean ratio of deaths per 1,000 during previous 5 years			Net receipt of each circle from conservancy	Net expenditure in each circle of conservancy	Principal sanitary defects of circle		Measure taken for sanitary improvements of circle
Fever	Dysentery and Diarrhoea	Respiratory diseases	Injuries	All other causes	All causes			Males	Females	Total	In drainage	In water-supply					
					Males	Females	Total										
7	8	9	10	11	12	13	14	15	16	17	18	19	20				
12-93	12	74	99	17-42	85-61	43-16	39-28	81-94	88-85	89-88							
25-05	1-80	1-86		4-30	35-84	40-84	38-77	28-17	25-56	24-06				5,249			
12-94	4-20	1-05		8-74	28-18	27-14	27-62	81-09	87-86	85-40				2,000			
4-66	21	64		2-64	7-06	10-58	8-47	28-43	88-80	80-62				2,667			
19-64	82			18-84	69-05	66-80	67-93	40-11	43-78	41-27				1,888			
5-53				1-80	5-87	5-28	7-51	83-36	81-24	80-19							
12-17	42			14-68	44-28	47-37	45-74	22-36	31-36	23-87							
8-08	1-78			3-98	9-62	7-62	8-81	79-21	90-18	88-90							
6-45	2-80	46		8-23	19-13	12-78	12-44	46-82	46-06	46-18							
15-60	1-04			4-16	25-21	27-80	26-62	88-69	88-43	88-59							
86-19		80		11-09	94-51	105-64	99-80	108-27	131-08	114-84				2,206			
9-87	44	08		8-64	15-70	14-87	15-14	92-55	91-86	92-21							
10-18	47	11	09	8-96	16-64	15-78	16-25	28-48	22-80	28-11							
8-84	46	07	88	10-07	17-88	19-17	18-49	18-21	18-74	18-83				750			
4-81				1-87	31-29	21-28	26-34	24-82	24-73	24-78				1,888			
4-75	50	5-80		9-25	90-50	18-66	90-56	38-21	22-84	25-84							
4-60				10-36	12-69	15-30	14-77	35-24	111-08	102-63							
1-56	84			7-17	14-57	17-29	15-88	30-68	81-87	81-17							
10-92	1-60	60	60	19-42	28-91	29-27	19-06	40-60	41-82	40-94							
2-11		26	8-18	27-78	12-77	17-68	58-09	60-11	68-08								
7-79	80	1-80	80	7-20	17-28	22-91	19-78	26-39	28-00	27-09							
18-45	90	1-36		2-70	25-11	17-67	21-08	41-29	43-22	42-00							
4-38	94	1-41		8-00	19-25	21-19	20-19	35-73	63-35	38-23							
15-64	67	87		8-40	30-46	17-88	34-32	38-38	32-78	38-03							
10-89	99		99	10-69	21-66	28-26	23-76	34-76	41-98	37-94				138			
7-88	64	82	14	4-62	15-04	14-54	14-60	29-44	30-36	27-87							
7-69	64	87	15	5-00	15-68	15-08	15-86	28-61	30-45	30-02							
9-29	51		18	21-75	47-17	50-61	48-73	83-13	86-69	34-79							
8-56	8-04			8-92	19-66	19-50	19-69	37-87	43-00	40-84							
8-50				1-65	7-27	8-73	5-47	30-80	30-97	30-50							
7-29				5-40	15-88	13-88	14-90	21-42	20-88	20-92							
17-99				11-11	38-92	39-32	29-10	25-91	24-08	24-98							
18-00	1-00			15-00	38-61	24-84	29-60	30-76	34-11	32-97							
5-58				8-83	9-81	8-86	9-36	7-51	6-45	7-00							
7-49			99	4-46	14-78	11-00	13-87	29-83	34-11	31-87							
10-94				9-87	22-73	17-86	20-81	29-83	34-11	31-87							
9-88				13-99	17-84	14-75	16-82	26-63	33-30	29-15							
6-89	82	08	04	4-68	18-89	14-72	14-29	23-51	26-20	24-46							
8-25	40	08	05	5-49	15-06	15-61	15-82	24-26	25-78	24-99							
8-01	1-47		85	12-55	18-98	19-77	19-03	40-28	51-90	45-69				3,731			
5-52	11		8-29	11-88	20-84	20-46	20-66	28-99	26-59	27-32				6,093			
1-88	85	86	67	8-29	14-58	11-00	13-70	62-14	71-51	67-13				194			
8-96			47	9-38	4-89	7-58	6-21	20-19	18-41	19-30							
9-61			68	4-08	6-67	7-81	7-29	49-38	40-96	41-69				1,388			
8-25				1-87	11-68	8-47	10-13	34-17	36-00	35-05				1,187			
9-28				4-46	16-32	16-43	16-87	32-60	33-29	32-93				1,060			
7-02			74	5-55	13-86	13-81	13-81	36-35	33-11	34-26				8			
10-70				5-38	22-34	15-26	17-68	34-86	46-56	40-40				787			
17-85					18-83	21-31	17-35	26-82	32-80	24-69				419			
4-69			99	5-51	8-90	16-18	11-94	127-60	148-88	137-86							
18-98				16-46	19-47	22-26	26-21	45-18	43-33	44-56							
4-74			1-19	7-90	18-07	9-17	13-83	40-66	41-40	41-01				1,187			
6-07	40	06	25	8-17	9-84	9-66	9-75	37-83	37-96	37-64							
4-99	41	07	80	8-68	10-46	10-28	10-38	26-66	29-56	29-11							
6-06	1-34	1-66	83	10-61	22-63	28-00	29-81	35-44	36-87	36-20							
7-11	40	16	16	8-84	18-85	19-36	19-26	29-60	28-61	28-61							
6-97	52	37	16	4-73	14-78	14-25	14-62	26-03	25-16	25-09							

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ANNUAL FORM No. III.

Deaths registered in the districts of Mysore State during each month of the year 1922.

Serial No.	District	January	February	March	April	May	June	July	August	September	October	November	December	Total deaths registered during the year	Serial No	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
2	angalore ... ..	1,285	1,337	1,337	1,197	1,005	1,272	1,555	1,615	1,786	1,798	1,782	1,780	17,684	..	
2	Kolar ... ..	997	1,276	1,198	1,068	880	965	1,161	1,467	1,512	1,303	1,261	1,338	14,516	..	
	Tumkur ... ..	1,012	673	719	671	660	676	797	876	829	924	959	1,052	9,846	..	
4	Mysore ... ..	1,409	1,055	1,148	1,140	1,185	1,188	1,292	1,242	1,188	1,404	1,249	1,548	14,958	..	
5	Hasan ... ..	671	665	600	544	497	529	791	991	1,036	1,041	1,105	1,096	9,467	..	
6	Shimoga ... ..	558	526	580	448	459	507	727	772	657	747	715	868	7,569	..	
7	Kadur ... ..	372	272	350	329	315	345	398	440	538	630	473	638	5,110	..	
8	Chitaldurg ... ..	489	392	428	408	458	420	466	519	567	636	575	605	5,968	..	
	Total ...	6,708	6,196	6,405	5,815	5,404	5,942	7,187	7,922	8,058	8,408	8,180	8,925	85,090	..	
	Ratio of deaths per 1,000 in each month ...	1.14	1.06	1.09	.99	.92	1.01	1.28	1.35	1.37	1.48	1.37	1.52	14.52	..	
	Similar ratio for past year ...	1.81	1.14	1.36	1.80	1.06	.91	.97	1.09	1.18	1.27	1.28	1.34	14.22	..	

ANNUAL FORM No. IV.

Deaths registered according to age in the districts of Mysore State during the year 1922.

Districts	1		2		3		4		5		6		7		8		9		10		11	
	Under 1 year		1 year and under 5		5 and under 10		10 and under 15		15 and under 20		20 and under 30		30 and under 40		40 and under 50		50 and under 60		60 and upwards			
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
Bangalore	886	768	784	696	610	685	610	585	546	566	1,001	1,078	942	915	870	768	687	785	2,122	1,744		
Kolar	911	802	717	676	572	571	552	581	597	447	584	590	523	556	676	620	762	552	1,514	1,304		
Tumkur	787	655	550	491	395	374	322	294	253	309	480	480	563	454	478	456	418	544	441	1,163	886	
Mysore	894	448	732	712	480	498	404	399	455	520	811	998	751	793	846	707	833	639	1,750	1,628		
Hasan	458	428	442	486	226	258	274	225	261	285	564	708	589	595	600	455	517	435	918	808		
Shimoga	506	407	381	348	253	224	211	187	279	299	504	549	508	454	440	234	351	269	677	457		
Kadur	889	269	266	287	171	179	108	98	142	180	315	464	350	312	343	284	322	220	281	267		
Chitaldrug	494	393	315	302	168	150	159	173	240	311	351	355	277	290	307	321	336	202	550	465		
Total for the province	4,865	4,155	4,127	3,898	2,696	2,629	2,820	2,201	2,672	2,911	4,642	5,710	4,671	4,453	4,538	3,738	4,512	3,523	9,194	7,839		
Population	77,962	80,696	2,67,884	2,67,969	4,06,512	4,16,311	3,67,949	3,37,174	2,49,571	2,26,446	1,96,378	5,26,078	4,37,965	3,74,208	2,91,532	2,68,381	1,99,449	1,87,066	1,89,639	1,80,567		
Ratio for 1,000 living	62.40	51.49	15.40	14.55	6.88	6.31	6.30	6.53	10.90	12.95	23.58	10.87	10.66	11.90	15.57	14.41	22.62	13.88	48.48	43.41		

ANNUAL FORM No. V.

Deaths registered according to classes in the districts of Mysore State during the year 1922.

No.	Districts	Population according to Census of 1921				Number of deaths registered				Ratio of deaths per 1,000 of population			
		Muhammadans	Hindus	Other classes	Total	Muhammadans	Hindus	Other classes	Total	Muhammadans	Hindus	Other classes	Total
		1	Bangalore	64,165	8,20,386	22,484	9,06,935	1,636	15,724	274	17,634	25.50	19.17
2	Kolar	56,175	7,15,054	21,110	7,92,339	1,310	11,127	2,079	14,516	23.32	15.55	38.48	18.92
3	Tumkur	37,904	7,24,565	10,559	7,73,128	535	8,852	461	9,848	14.11	12.21	43.68	12.72
4	Mysore	68,464	13,37,844	12,011	14,08,319	859	13,433	656	14,988	16.63	10.04	55.45	10.68
5	Hasan	19,371	5,59,530	12,209	5,83,850	339	3,351	747	9,437	17.77	15.16	61.18	16.21
6	Shimoga	85,918	4,85,169	21,473	4,93,560	622	4,318	627	7,569	17.51	14.51	29.20	16.87
7	Kadur	17,367	3,00,510	15,061	3,33,938	313	4,246	551	5,110	17.82	14.18	35.59	15.32
8	Chitaldrug	30,723	5,29,378	14,073	5,74,179	478	5,059	428	5,968	15.58	9.54	30.40	10.38
	Total for the province	3,15,867	54,15,636	1,28,929	58,60,959	6,122	78,128	5,883	85,090	19.49	13.50	45.24	14.52
	Total for the previous year	...	...	...	...	6,128	63,904	5,246	63,348	25.96	12.90	40.69	14.22

## ANNUAL FORM No. VI.

Deaths registered from different causes in the districts and towns of the Mysore State during the year 1922.

1	2	3	4	5	6	7	8	9	10					11	12	13																			
									No.	Districts and towns	Population according to Census of 1921	Cholera	Small-pox			Plague	Fever	Dysentery and diarrhoea	Respiratory diseases	Injuries					Total deaths from all causes	Ratio of deaths per 1,000 of population									
																				Males	Females	Wounds or acci- dents	Snake-bite or killed by wild beasts	Total		Cholera	Small-pox	Plague	Fever	Dysentery and diarrhoea	Respiratory dis- eases	Injuries	All other causes	From all causes	
																																		For the year	Mean of previous five years
<b>A. DISTRICTS</b>																																			
1	Bangalore	7,18,851		205	2,524	6,145	299	914	10	15	78	20	143	2,769	12,399		28	8.62	6.55	.42	.44	.20	8.85	17.25	32.41										
2	Kolar	6,46,680		122	1,109	6,218	198	163	82	24	78	21	165	3,004	10,969		17	1.71	9.61	.29	.25	.94	4.64	16.95	23.40										
3	Tumkur	7,05,668		122	59	4,512	369	26	9	7	66	29	111	3,103	8,803		17	0.8	6.39	.52	.04	.16	4.89	11.76	26.95										
4	Mysore	12,27,252	3	293	1,640	5,726	664	189	9	14	127	90	179	6,520	11,914		24	1.84	4.87	.80	.15	2.66	9.71	19.03											
5	Hassan	5,37,456	8	18	529	5,305	238	42	7	3	19	15	44	1,956	6,135		15	0.8	9.87	.44	.08	.08	16.14	33.21											
6	Shimoga	4,43,076		69	643	5,269	286	141	11	6	27	19	63	2,046	6,587		15	1.54	7.38	.64	.32	.14	4.62	14.80	33.66										
7	Kadur	2,37,713		4	211	2,467	97	8	1		12	13	18	1,452	4,254		11	1.89	8.8	.82	.04	1.88	14.23	34.6											
8	Chitaldrug	5,13,302	188	127	233	2,540	201	38	16	22	72	13	122	1,701	5,007	.07	0.26	.47	5.07	.40	.06	25	3.17	9.75	27.64										
Total of Districts		50,90,043	44	960	6,394	36,177	2,047	918	94	91	499	152	686	19,551	67,527	0.00	1.19	7.11	.40	.18	.16	9.84	18.26	23.61											
<b>B. TOWNS.</b>																																			
<b>BANGALORE DISTRICT</b>																																			
1	Bangalore	1,16,556		17	227	498	195	628		8	8	2	6	2,243	3,906		14	1.91	4.16	1.65	5.26	.07	18.92	32.10	43.97										
2	Channarayana	11,844		8	35	85	9	6		1	1		4	18	130		68	4.64	2.95	.76	.51	.34	1.09	10.97	36.10										
3	Dodballapur	7,888		2	71	71	1	1		1			1	21	96			9.96	.18			.13	1.77	12.65	32.05										
4	Devanahalli	5,887		70	85	9	4						60	228			13.00	15.78	1.67	.74		11.14	42.32	33.10											
5	Clostep	5,552		60	60	2							11	75				10.81	86	36		1.98	13.51	87.97											
6	Kankanahalli	6,769		36	36	2		17			1		6	64				8.25	.35	2.95		1.89	11.11	23.26											
7	Ankal	6,825		8	68	7		1		1			94	190		.95	1.28	1.11	.15	.16		6.87	16.97	33.60											
8	Tyranagondia	3,831		39	39	1		1					17	53				11.60	.80	90		5.01	17.11	34.37											
9	Nelamangala	3,854		1	28	8		5					40	77				8.85	.89	1.49		11.98	23.98	43.85											
10	Vadigenahalli	3,790		19	47			9					21	89				5.09	12.60		.53		5.68	23.66	35.32										
11	Magadi	5,132		88	88	1		8					19	63				6.48	.19			2.70	10.83	49.88											
12	Hoskote	4,392		72	80	1		8			4		5	22	129			15.89	17.85	.92	.83	1.10	4.85	40.39	26.78										
13	Sarjapur	2,639		20	1	50	1	1			1		41	123			7.57	18.94	38	8.33	.88	15.63	46.21	28.49											
14	Yalshanka	2,658		1	10			2					17	30				9.91				6.64	11.73	33.65											
15	Saltala	1,784		62	38								104	9				35.76	19.03			5.19	60.00	24.97											
<b>KOLAR DISTRICT</b>																																			
16	Kolar Gold Fields	87,682		9	7	193	255	198	2		76	3	81	1,694	2,377		10	0.9	9.90	9.96	1.87	92	18.18	65.96	41.85										
17	Kolar	33,368		1	3	115	20	18	1		8		10	50	217			2.93	8.60	1.49	1.84	.75	3.74	76.98	26.88										
18	Sidlaghatta	3,697		182	53				1		1		2	21	257		07	49.28	14.06			54	6.66	69.68	40.22										
19	Mulbagal	5,671		40									1	4	46			7.05				16	7.93	44.42											
20	Chikballapur	10,431		128	66	3					1	1	2	87	276			12.27	5.87	0.9		1.19	8.84	26.46	48.95										
21	Malur	3,773		68	51			1			1		1	28	151			16.00	18.49		.97	2.7	7.46	89.95	24.28										
22	Ernisavapur	3,113																																	
23	Bownringpet	5,893				63	11						17	81					10.69	.17			3.88	18.74	34.94										
24	Gorbidnur	1,842				42			2		2		4	7					22.02			2.17	3.88	68.77	45.87										
25	Chintamani	6,161		3	18	76					1	1	2	40	189			4.8	2.92	12.84		82	6.49	32.56	64.92										
26	Gudbanda	3,450				14		2					9	25					5.71			.92	6.87	10.20	44.40										
27	Bagepalli	1,716				14					1		1	21					8.15			.68	12.93	60.98	99.50										





ANNUAL FORM No. VII.

Deaths registered from cholera in the districts of the Mysore State during each month of the year 1922.

No.	Districts	Circles of registration		Towns		January	February	March	April	May	June	July	August	September	October	November	December	Total			Ratio of death per 1,000 of population			Mean rate per 1,000 of persons five years.
		Number in each district	Numbers from which deaths from cholera were reported	Number in each district	Numbers from which deaths from cholera were reported													Males	Females	Total	Males	Females	Total	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
1	Bangalore	16	...	16	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.19
2	Kolar	18	...	19	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.61
3	Tumkur	19	...	16	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.82
4	Mysore	28	1	22	...	...	1	...	1	...	...	...	1	...	...	...	...	...	1	8	0.00	0.00	0.00	0.91
5	Hassan	15	1	13	...	...	...	...	...	...	...	...	...	8	...	...	...	...	...	...	...	...	...	0.18
6	Shimoga	18	...	13	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.08
7	Kadur	11	...	10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.08
8	Chitaldrug	14	8	18	2	...	1	...	...	...	...	...	9	...	18	5	7	...	24	16	40	08	06	0.67
	Total for the State	124	5	115	2	...	2	...	1	...	...	...	10	8	18	5	7	29	17	46	009	006	008	0.46

ANNUAL FORM No. VIII.

Deaths registered from small-pox in the districts of the Mysore State during each month of the year 1922.

No.	Districts	Circles of registration		Towns		January	February	March	April	May	June	July	August	September	October	November	December	Total			Ratio of death per 1,000 of population			Mean rate per 1,000 of persons five years.
		Number in each district	Numbers from which deaths from small-pox were reported	Number in each district	Numbers from which deaths from small-pox were reported													Males	Females	Total	Males	Females	Total	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
1	Bangalore	16	6	15	5	9	19	22	24	20	26	22	15	17	50	48	9	123	184	267	26	30	28	44
2	Kolar	19	5	12	4	12	15	6	5	5	3	13	17	5	14	21	15	66	71	137	15	15	17	76
3	Tumkur	19	7	18	6	21	14	17	14	15	10	17	4	7	1	3	15	67	69	136	17	13	17	86
4	Mysore	28	6	22	5	16	20	23	46	46	18	17	23	22	26	18	59	161	188	344	23	26	26	115
5	Hassan	15	4	13	3	8	2	2	8	5	1	1	1	2	2	2	2	11	11	22	0.04	0.04	0.04	1.07
6	Shimoga	18	4	12	2	11	10	14	10	5	...	21	4	2	2	...	...	42	87	79	15	16	16	87
7	Kadur	11	8	10	2	...	1	1	1	...	...	...	...	...	...	...	...	4	2	6	02	01	02	1.14
8	Chitaldrug	14	5	18	4	2	8	18	16	16	10	27	2	29	19	13	10	77	91	168	26	35	29	1.26
	Total	124	40	115	33	74	99	98	190	113	65	119	61	88	88	100	109	551	598	1,149	18	20	19	97



ANNUAL FORM No. IX.

Deaths registered from fever in the districts of the Mysore State during each month of the year 1922.

Districts	Circles of registration		Towns		January	February	March	April	May	June	July	August	September	October	November	December	Total			Ratio of death per 1,000 of population			Mean ratio per 1,000 of previous five years
	Number in each district	Numbers from which deaths from Fever were reported	Number in each district	Numbers from which deaths from Fever were reported													Males	Females	Total	Males	Females	Total	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1. Bangalore ...	16	16	15	15	602	598	629	550	408	493	714	671	692	659	562	700	3,898	3,410	7,808	8.41	7.70	8.06	10.57
2. Kolar ...	13	12	12	11	534	710	698	641	513	446	550	655	657	570	472	543	3,575	3,854	6,929	8.89	8.66	8.74	10.23
3. Tumkur ...	19	18	18	17	481	342	404	359	314	338	433	514	473	491	488	624	2,761	2,590	5,261	6.99	6.61	6.80	8.92
4. Mysore ...	23	22	22	21	526	371	539	568	531	490	513	477	497	605	501	642	3,231	3,029	6,260	4.59	4.32	4.46	5.99
5. Hassan ...	15	12	13	11	304	423	400	332	301	318	490	599	680	681	725	691	3,062	2,882	5,944	10.43	9.88	10.18	15.74
6. Shimoga ...	13	13	12	12	292	242	292	225	228	250	295	230	304	360	368	404	1,926	1,614	3,540	7.49	6.66	7.19	8.23
7. Kadur ...	11	11	10	10	190	174	199	205	197	202	259	235	258	291	226	316	1,444	1,308	2,752	8.27	8.22	8.25	9.28
8. Chitaldrug ...	14	14	13	13	216	155	224	213	229	211	214	228	268	322	325	260	1,506	1,359	2,865	5.10	4.97	4.99	7.06
Total ...	124	118	115	110	3,145	3,005	3,325	3,133	2,721	2,748	3,468	3,659	3,829	3,979	3,667	4,180	21,403	19,456	40,859	7.17	6.77	6.97	8.82

ANNUAL FORM No. X.

Deaths registered from dysentery and diarrhoea in the districts of the Mysore State during each month of the year 1922.

Districts	Circles of registration		Towns		January	February	March	April	May	June	July	August	September	October	November	December	Total			Ratio of death per 1,000 of population			Mean ratio per 1,000 of previous five years
	Number in each district	Numbers from which deaths from Bowel-complaints were reported	Number in each district	Numbers from which deaths from Bowel-complaints were reported													Males	Females	Total	Males	Females	Total	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1. Bangalore ...	16	13	15	12	65	51	45	34	25	50	60	54	58	21	24	59	300	231	531	.65	.52	.58	.66
2. Kolar ...	13	5	12	4	23	35	37	27	23	58	63	55	38	31	30	52	266	206	472	.66	.53	.59	.59
3. Tumkur ...	19	14	18	13	44	26	34	27	50	20	32	37	30	39	68	98	257	248	505	.65	.65	.65	.57
4. Mysore ...	23	16	22	15	46	42	35	20	47	60	68	60	67	63	49	62	319	300	619	.45	.43	.44	.69
5. Hassan ...	15	10	13	9	15	9	17	19	20	19	20	25	23	24	20	61	165	112	277	.56	.38	.47	.49
6. Shimoga ...	13	10	12	9	20	14	20	15	16	19	42	35	32	38	30	32	171	142	313	.66	.60	.63	.68
7. Kadur ...	11	4	10	3	8	3	2	12	10	19	11	14	15	10	15	15	64	70	134	.53	.44	.48	.66
8. Chitaldrug ...	14	4	13	3	24	18	15	26	12	24	12	25	17	16	12	36	128	109	237	.43	.39	.41	.51
Total ...	124	76	115	68	295	193	205	180	203	269	308	305	280	242	248	415	1,665	1,418	3,083	.65	.49	.52	.68

ANNUAL FORM No. XI.

Deaths registered from Plague in the districts of the Mysore State during each month of the year 1922.

SAN. R.

Districts	January		February		March		April		May		June		July	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Bangalore City	5	4	35	33	10	10	...	...	...	...	...	...	1	1
Bangalore District	120	90	194	127	105	86	50	35	52	85	200	181	245	210
Mysore City	12	10	8	7	...	...	...	...	...	...	...	...	2	1
Mysore District	312	263	175	115	120	93	85	70	87	70	168	136	206	175
Kolar	122	84	184	139	100	76	22	12	...	...	21	15	85	57
Tumkur	100	40	80	24	...	...	...	...	...	...	...	...	...	...
Hassan	145	95	82	45	28	16	36	22	16	10	20	14	72	58
Shimoga	60	35	115	68	56	35	6	2	36	24	52	37	132	130
Kadur	25	13	5	2	16	11	4	2	...	...	18	5	16	9
Chitaldrug	64	43	42	30	25	14	...	...	4	2	7	4	58	39
Kolar Gold Fields	...	...	...	...	8	6	...	...	...	...	...	...	...	...
Total	965	677	920	570	468	348	203	143	195	141	481	392	867	680

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Districts	August		September		October		November		December		Total		Ratio per cent of deaths to total attacks	Ratio of deaths per 1,000 of population
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths		
	16	17	18	19	20	21	22	23	24	25	26	27	28	29
Bangalore City	28	26	38	34	42	38	50	45	40	36	249	227	91.16	1.91
Bangalore District	418	355	516	430	520	403	656	529	450	333	3,526	2,614	79.80	3.57
Mysore City	...	...	4	4	5	5	3	...	10	10	44	37	84.09	.44
Mysore District	295	259	210	174	254	206	228	196	216	174	2,356	1,981	81.96	1.46
Kolar	320	217	331	237	235	207	340	242	230	192	2,140	1,508	70.47	2.14
Tumkur	...	...	60	21	...	...	24	9	21	9	235	102	35.79	.13
Hassan	168	104	156	95	140	86	194	135	158	111	1,215	791	65.10	1.65
Shimoga	300	219	105	70	136	85	105	66	203	148	1,346	919	68.28	1.67
Kadur	45	26	136	73	136	135	75	57	40	28	560	361	64.46	1.08
Chitaldrug	80	52	45	29	52	34	3	1	...	...	330	243	65.26	.48
Kolar Gold Fields	...	...	...	...	...	...	...	...	1	1	9	7	77.78	.08
Total	1,654	1,258	1,650	1,217	1,610	1,199	1,678	1,280	1,419	1,040	12,110	8,945	73.86	1.53

7

# Government of His Highness the Maharaja of Mysore.

GENERAL AND REVENUE DEPARTMENTS.

G. O. No. D. 4848-907—C. V. 46-27-6, dated 9th November 1927

## Civil Veterinary Department.

Reviews the Report on the working of the — for the year 1926-27.

### READ—

Letter No. Per. 20-27-28, dated 20th October 1927, from the Director of Agriculture, submitting the Annual Report on the working of the Civil Veterinary Department for the year ending 30th June 1927.

ORDER No. D, 4848-907—C. V. 46-27-6, DATED 9TH NOVEMBER 1927.

Recorded.

2. Mr. K. Krishna Iyengar, Assistant Superintendent, was appointed to act as Superintendent, Civil Veterinary Department, and he took charge on 3rd July 1926, on the appointment of Lt. A. A. Monteiro as Superintendent, Amrut Mahal Department. He remained in charge till 27th November 1926, when Major R. W. Simpson returned from leave and resumed charge of the Office of the Superintendent, Civil Veterinary Department.

3. *Contagious Diseases*—(a) *Rinderpest*.—There were 308 outbreaks of rinderpest to be attended to on 1st July 1926 and 919 more were reported during the year making a total of 1,227. Departmental Officers attended to 1,066 of them. As preventive inoculation against rinderpest was greatly impeded owing to the levy of a fee, the fee was reduced from Re. 1 to annas 8 per head of cattle inoculated and in special cases, Veterinary Inspectors were authorised to conduct inoculation free of charge. During the year, 24,555 animals were protected against rinderpest by active immunisation and 24,498 by passive immunisation.

(b) *Anthrax*.—There were 25 outbreaks of anthrax to be attended to on 1st July 1926 and 2,228 fresh outbreaks were reported during the year making a total of 2,253. The staff was able to deal with only 354 of the outbreaks as the campaign against rinderpest kept it fully occupied. Anti-anthrax spore vaccine was obtained from the Biological Institute of Australia and was tried with great success, especially on the Rayankere Dairy Farm. Arrangements are being made to undertake this method of protection on a much larger scale.

(c) *Black-quarter*.—Three hundred and forty-one outbreaks of Black-quarter were pending on 1st July 1926, and as 2,884 fresh outbreaks were reported, there were altogether 3,225 outbreaks to be attended to by the staff during the year. Two thousand four hundred and five of these received attention. The number of animals protected was 50,521 or rather more than twice the number protected in the previous year.

(d) *Hæmorrhagic-Septicæmia*.—This disease is common in the Malnad. Five hundred and eighteen outbreaks were reported, the number last year being 395; but only 157 could be attended to owing to the engrossing nature of the combative measures against rinderpest.

Sheep-pox and parasitic diarrhoea also accounted for a heavy mortality among livestock.

No. D. 4848-907—C. V. 46-27-6, DATED 9TH NOVEMBER 1927.

4. *Hospitals and Dispensaries.*—There are 38 of these in the State, including the six that were opened during the year at Yedatore, Kankanhalli, Magadi, Sira, Jagalur and the Kolar Gold Fields. In Government Order No. D. 5457-66—C. V. 54-26-2, dated 15th January 1927, Government have laid down a programme according to which four new dispensaries will be opened each year. Government recognise the importance of increasing the number and improving the equipment of these institutions, but financial conditions impose obvious limitations on the rapidity of development.

Progress depends also on the extent of co-operation forthcoming from local bodies and private philanthropy in providing suitable buildings. During this year, the District Board of Mysore has contributed towards the cost of the better equipment of two important dispensaries and the following gentlemen have generously come forward to erect Dispensary Buildings at the Stations specified against their names:—

Names.	Stations.
1. Rao Sahib K. Ramaswamaiya, Bombay	.. Hole-Narsipur.
2. Mr. Venkategowda, Patel, Sravanabelagola	.. Channarayapatna.
3. „ Devoji Rao, Yedatore	.. Yedatore.
4. „ Yele Krishnappa, Devanhalli	.. Devanhalli.
5. „ Agumbe Rama Rao, Tirthahalli	.. Tirthahalli.
6. „ Devappagowda, Patel, Hettagowdanhalli	.. Arkalgud.
7. „ Sivananjappa, Tiptur	.. Tiptur.

While Government have great pleasure in recording their appreciation of this valuable assistance, they trust it will be forthcoming in even more generous measure in future years. Altogether 67,137 cases were treated in Veterinary Hospitals and Dispensaries which is an appreciable improvement over 56,115 of last year; but the number is still too small when regard is had to the total number of cattle in the State.

5. *Staff.*—The reorganisation of the staff is engaging the active consideration of Government. All the Veterinary Officers working in other departments were brought into the cadre of the Civil Veterinary Department under the Superintendent, Civil Veterinary Department.

6. *General.*—Six candidates were selected as stipendiary students to undergo a course of study in the Punjab Veterinary College, Lahore. A scholarship was also given for study in the Bombay Veterinary College. There were altogether 19 students at the Punjab College and one in the Bombay College during the year. There are also two Veterinary Inspectors at Muktesar undergoing training at the Imperial Institute of Veterinary Research.

7. Dr. P. Parthasarathy of the Public Health Department and Mr. S. D. Achar, Veterinary Inspector, were deputed to study the preparation of sera and vaccine at Muktesar.

N. RAMA RAO,  
*Secretary to Government,  
Development Departments,*

To—The Director of Agriculture in Mysore.  
The Revenue Commissioner in Mysore.  
The Heads of Departments.  
The Deputy Commissioners of Districts,  
The Presidents of District Boards.

Exd.—P. S. R. N.

THE ANNUAL REPORT OF THE MYSORE CIVIL VETERINARY  
DEPARTMENT FOR THE YEAR 1926-27.

ADMINISTRATIVE STAFF.

Mr. K. Krishnaiengar, Assistant Superintendent, who was acting Live-stock Officer, was appointed to act as Superintendent and took over charge on 3rd July 1926 from Lieut. A. A. Monteiro, who was appointed to act as Superintendent, Amrut Mahal Department. Mr. K. Krishnaiengar remained in charge till the 27th November 1926, when the Superintendent, Major R. W. Simpson, returned from leave. Mr. K. Krishnaiengar then reverted to Assistant Superintendent, Eastern Division, and Mr. B. V. Venkatachar, who was acting for him, reverted to Veterinary Officer, Bangalore Veterinary Hospital. Mr. K. N. Srinivasan, Assistant Superintendent *sub pro tem*, continued in charge of the Western Division, except for 19 days, 5th to 23rd February 1927, during which period he availed himself of leave, Mr. B. V. Venkatachar, Veterinary Officer, Bangalore, acting for him.

SEASONAL CONDITIONS.

The seasonal conditions during the year were good in the Districts of Hassan, Kadir, Shimoga and Chitaldrug, but were less favourable in the other four districts in the State, where rinderpest, blackquarter and anthrax accounted for a heavy mortality among the live-stock. In the Kolar District there was also scarcity of fodder and water.

CONTAGIOUS DISEASES.

The year opened with 308 outbreaks of rinderpest, 25 of anthrax, 35 of hæmorrhagic septicæmia, 341 of blackquarter, and 262 of other contagious diseases. During the year 919 fresh outbreaks of rinderpest, 2,228 of anthrax, 513 of hæmorrhagic septicæmia, 2,384 of blackquarter, and 2,582 of other contagious diseases were registered. The staff were only able to personally attend to 1,066 outbreaks of rinderpest, 354 of anthrax, 518 of hæmorrhagic septicæmia, 2,405 of blackquarter, and 917 of other contagious diseases. In 1,857 outbreaks of anthrax, 347 of hæmorrhagic septicæmia and 1,520 of other contagious diseases, written instructions were sent to the Patels of villages instructing them what precautions to take and to report progress of disease.

Preventive inoculation against rinderpest was greatly impeded owing to the levying of a fee, raiyats in many instances allowing their cattle to die rather than pay the fee, although they were fully aware of the advantages of inoculation. In September 1926 the fee was reduced from Re. 1 to 8 As. but in many villages even this fee was objected to, so Government very generously modified the order, and allowed Veterinary Inspectors in special cases, as where a raiyat is too poor to pay the fee, or where cattle sought to be saved belongs to a person of the depressed classes, to conduct inoculation free of charge. This to a great extent helped to further inoculation, but unfortunately just as the disease was being got under control, the work had to be suspended for want of funds, with the result that the disease got out of control again and spread to fresh areas. During the first half of the year both active and passive immunisation were undertaken. Active immunisation was only undertaken on payment of a fee, but as it was found that passive immunisation was practically without legislation to control the movement of cattle, this method of inoculation was discontinued in the second half of the year.

Active immunisation has become very popular in parts where the raiyats have seen its advantages, notwithstanding that there have occasionally been a few deaths following it. A certain number of deaths after inoculation are to be expected in villages already infected, as it is impossible to take the temperature of every

single animal before inoculation or to always single out animals in the incubative stage. So long as the staff warn the raiyats that a few of the inoculated animals may develop the disease, they do not get scared when this does occasionally happen.

From the above it is not to be concluded that deaths follow active immunisation alone, as it has been observed that more attacks and deaths immediately follow passive immunisation. During the year 24,555 animals were protected against rinderpest by active immunisation and 24,498 by passive immunisation.

*Anthrax.*—It is to be deplored that more attention could not be paid to protecting animals against this disease. As already stated only 354 outbreaks out of a total of 2,253 could be personally attended to by the staff, as they were fully occupied in dealing with rinderpest which disease is always given the preference. Besides, the districts where anthrax annually occurs, are very poorly staffed.

Anti-anthrax spore vaccine was obtained from the Biological Institute of Australia, and tried with great success, especially on the Rayankeri Dairy Farm, where deaths from anthrax had been occurring at frequent intervals. Since the stock were protected, there have been no deaths. This vaccine was also tried in several localities where there had been constant deaths from anthrax, and results so far have been very encouraging. Arrangements are being made to undertake this method of protection on a much larger scale.

The mortality among sheep after vaccination is about 7 per cent but as it apparently confers immunity on the rest of the sheep in localities where the death rate has always been high from anthrax, this small percentage of deaths is not of much consequence. The people have evidently realised the value of this method of vaccination, as several complaints were received when the staff, either from shortage of vaccine or of special syringes required, were unable to undertake the work.

*Blackquarter.*—Protection against blackquarter has become very popular, especially in those parts of the State where formerly there was great opposition to it. Fifty thousand five hundred and twenty one animals were protected against 24,556 of the previous year. Complaints were being constantly received from the staff in the districts, and complaints and telegrams were received from the people as well, imploring for adequate supplies of aggression to protect the cattle.

The high mortality from blackquarter and anthrax is not only a loss to the owners of the cattle, but also to the State, as only the better cared for and more valuable animals appear to contract these diseases. This is the class of animal that is purchased by people from outside Mysore, and so every animal thus lost, means so much less money coming into the State.

*Hæmorrhagic Septicæmia.*—As already stated 518 outbreaks of hæmorrhagic septicæmia were registered against 395 of the previous year, but measures for the protection of cattle had to be limited by the financial resources available. The losses from diseases pressed hardest on the people in the Malnad where the mortality among cattle from epidemic diseases is usually heavy and where severe losses had been suffered during the past five years from rinderpest and anthrax.

*Other Contagious Diseases.*—Sheep-pox and parasitic diarrhœa also accounted for a heavy mortality among the live-stock, but very little could be done, as the staff were fully occupied dealing with rinderpest.

Unless every taluk has a dispensary with a Veterinary Inspector, and unless adequate funds are provided, it is impossible to deal with the numerous diseases in the State.

#### HOSPITALS AND DISPENSARIES.

Six Dispensaries were opened during the year at Yedatore, Kankanhalli, Magadi, Sira, Jagalur and on the Kolar Gold Fields. There are now 39 of these institutions in the State.

The older Veterinary Institutions still remain very poorly equipped, and the stock of instruments are mostly damaged or worn and badly need renewing. Unless the necessary funds are provided to replace these and to purchase other necessary equipment, the staff will be seriously handicapped. As it is, complaints are continually being received from both the staff and the public, that the staff have not been able to treat cases for want of instruments, and occasionally, medicines

also. The Mysore District Board have generously sanctioned Rs. 500 for the better equipment of the two oldest dispensaries in the district.

A few more charitably disposed citizens, Rao Sahib K. Ramaswainia of Bombay, Mr. Venkate Gowda, Patel of Sravanbelagola, Mr. Devoji Rao of Yedatore, Mr. Yele Krishnappa of Deyanhalli, Mr. Agumbe Rama Rao of Tirthahalli and Mr. Devappa Gowda, Patel of Hettagowdanahalli have very generously come forward to erect suitable buildings for dispensaries at Hole-Narsipur, Channarayapatna, Yedatore, Devanhalli, Tirthahalli and Arkalgud respectively.

Mr. H. Niranjanraj Urs, Amildar of Jagalur, has taken great interest in the work and has gone to a great deal of trouble in raising subscriptions to erect a building for the dispensary at Jagalur, and with help from the local bodies it is hoped to have the building ready shortly.

Mr. M. Sivananjappa has nearly completed the building for the dispensary at Tiptur.

Some of the institutions are located in buildings that are not at all suitable, and a few of these are very dilapidated.

Sixty-seven thousand, one hundred and thirty-seven cases were treated in Veterinary Hospitals and Dispensaries against 56,115 of the previous year, yet these institutions are not being made as much use of by the people as they should be; the reason being that those who have to bring their animals from a distance can never be sure of finding the Veterinary Inspector at his institution, as he is more often away than at headquarters, dealing with the numerous outbreaks in the extensive area allotted to him. It would be of great advantage if the Salustries and Compounders could be given a year's systematic training and a permanent school could be established for the purpose.

A class for training Compounders was opened in April for four months, and seven Compounders were selected to be trained. One had to be excused, as he had urgent private affairs to attend to, and one died. The latter's place was filled by a recruit. Two Sowars selected from the Mysore Lancers, also attended the class. The course was too short, especially for men who are expected to be competent to carry on the work in an institution during the absence of the Veterinary Inspector on tour. A year's training at least is very necessary to make an efficient Salustry.

#### WORK DONE ON TOUR.

The Veterinary Inspectors again this year have had very little time for systematic touring owing to the large number of outbreaks, but they nevertheless took full advantage of their stay while in villages attending to outbreaks, to do as much as possible for the raiyats by operating on and treating such animals that required attention. Twenty four thousand, six hundred and fifty-eight animals were castrated against 17,126 of the previous year; 17,190 cases were treated on tour against 14,362 of the previous year; and 608 operations were performed.

#### PERSONNEL.

The staff have as a whole done splendid work, notwithstanding the fact that at least 50 per cent have had their constitutions undermined while working in the unhealthy tracts of the Malnad. It was not an uncommon occurrence to find men at work though with high fever on them in order to complete the work in the village before returning to headquarters. The staff still continue to do good work. But early reorganisation of the department is very necessary as an incentive to continued good work since, as has been pointed out, they are the most poorly paid Veterinary staff in India. The fact that there have been 33 resignations in the past two years seems to indicate that the pay and prospects in the department are not very attractive.

During the year 11 Veterinary Inspectors resigned, and 6 graduates of the Madras Veterinary College were entertained.

A very important and necessary order was passed by Government during the year amalgamating the several veterinary services in the State and placing all the Veterinary Officers on one cadre under the Superintendent, Civil Veterinary Department. This will allow an interchange of Veterinary Officers from one branch to another, which is very necessary.

Six candidates were selected as stipendiary students to undergo a course of study in the Punjab Veterinary College, Lahore. Two scholarships became available through two of the first year students of the Punjab Veterinary College failing to continue their studies. One of these scholarships was given to a second year student in the Bombay Veterinary College. During the year 19 students were at the Punjab Veterinary College and one at the Bombay College.

The two Veterinary Inspectors deputed for a three years' training at Muktesar, were still at the Imperial Institute of Veterinary Research doing their final year.

Dr. P. Parthasarathy of the Public Health Department and Mr. S. D. Achar, Veterinary Inspector, the latter had completed a Post Graduate Course at the Punjab Veterinary College, were deputed to study the preparation of the different sera and vaccines at Muktesar.

#### CATTLE FAIRS.

Seventy-five out of 77 cattle fairs held in the State, were attended by the staff, and in those places where accommodation was provided, a temporary dispensary was opened. Several of the local bodies responsible for the management of these fairs, did all they could to assist the staff in their work and to minimise the breaking out of disease among the cattle, but unfortunately a few individuals rather resented the presence of the Veterinary staff and placed obstacles in their way. Rules and Regulations are very necessary for the guidance of those responsible for the management of these cattle fairs, especially for private people who organise and run a few of these, if such fairs are not to be a source of spreading disease as has been the case in recent years.

#### CATTLE BREEDING.

Beyond maintaining 19 bulls in Veterinary Institutions and granting a few subventions to private owners of breeding bulls in the State, nothing substantial has been done to supply the existing want of really good bulls, which are becoming more scarce every day.

BANGALORE,  
Dated 13th October 1927.

R. W. SIMPSON, MAJOR,  
Superintendent, Civil Veterinary Department.



Statement showing the work done in the Civil Veterinary Department  
during the year 1926-27.

Sl. No.	Particulars	Number
1	Number of fresh cases admitted to the institution	67,137
2	Total daily attendance for the year	1,53,265
3	Number of castrations performed in the institutions	3,454
4	Number of other operations performed in the institutions	5,332
5	Number of cases treated on tour	17,190
6	Number of castrations performed on tour	24,658
7	Number of other operations performed on tour	608
8	Number of outbreaks of rinderpest pending on 1st July 1926	308
9	Number of outbreaks of rinderpest registered during 1926-27	919
10	Number of outbreaks of rinderpest attended to during 1926-27	1,066
11	Number of outbreaks of rinderpest where inoculation was totally refused	95
12	Number of outbreaks of anthrax pending on 1st July 1926	25
13	Do do registered during 1926-27	2,228
14	Do do attended during 1926-27	354
	{ Personally	1,857
	{ By written instructions	
15	Number of outbreaks of H. S. pending on 1st July 1926	35
16	Do do registered during 1926-27	518
17	Do do attended to during 1926-27	157
18	Number of outbreaks of black quarter pending on 1st July 1926	341
19	Do do registered during 1926-27	2,884
20	Do do attended to during 1926-27	2,405
21	Number of outbreaks of all other contagious diseases pending on 1st July 1926...	262
22	Do do registered during the year 1926-27	2,582
23	Do do attended to during 1926-27	917
	{ Personally	1,520
	{ By written instruction.	446
24	Total number of outbreaks that were detected	4,303
	{ Personally on tour	2,243
	{ By checking C. M. R. in	
	Taluk Offices	446
25	Total number of outbreaks that were reported through	2,142
	C. V. D. 10 B	
	C. V. D. 10 C	2,142
26	Number of inoculations performed against rinderpest	24,555
	S. S. Method	
27	Number of inoculations performed against anthrax	5,952
	S. A. Method	
28	Do do Haem. Sept.	2,238
29	Do do blackquarter	50,521
30	Do Vaccination against sheep-pox	854
31	Number of cattle fairs held	77
32	Do do attended by the Veterinary Inspectors	75
33	Do Taluk Conferences held	57
34	Do do attended	52

Statement showing the number of outbreaks of Epidemic Cattle Diseases attended to in the State during the year 1926-27.

Area	Rinder-pest	Anthrax	Haem. Sept.	Black-quarter	Other contagious diseases	Total for 1926-27	Total for 1925-26
Bangalore	15	54	1	40	37	147	124
Dodballapur	9	204	22	116	171	522	548
Anekal	...	49	4	33	34	120	76
Channapatna	3	3	3	141	4	164	370
Kankanhalli	3	15	3	67	17	105	...
Magadi	...	24	3	64	25	116	...
Mysore	39	168	57	63	72	399	455
Hunsur	16	75	18	54	132	295	427
Nagamangala	13	42	16	147	108	328	216
Yodatore	16	8	7	20	76	127	..
Chamrajnagar	28	105	26	63	36	258	74
Malvalli	19	103	25	67	105	319	177
Tumkur	1	136	19	216	96	468	458
Tiptur	2	25	4	219	78	328	113
Sira	...	13	9	28	18	65	..
Maddur	...	98	23	198	126	445	184
Kolar	1	250	18	133	107	509	296
Chikballapur	..	42	26	86	51	205	131
Chintamani	4	94	17	98	53	266	209
Kolar Gold Fields	...	1	...	3	3	7	...
Shimoga	16	104	1	14	96	231	291
Sagar	79	103	26	6	57	301	255
Shikarpur	102	51	7	3	44	115	56
Channagiri	96	97	4	25	78	200	232
Tirthahalli	11	5	29	1	23	69	37
Chitaldrug	18	80	9	48	40	195	272
Davangere	19	42	2	18	30	111	165
Jagalur	7	8	1	12	21	49	..
Challakere	9	17	3	54	25	108	51
Hosdurga	67	83	8	42	39	239	91
Chikmagalur	139	40	12	28	105	324	203
Tankere	20	17	9	16	48	110	119
Mudigere	31	3	9	3	23	69	97
Hassan	87	8	33	51	135	314	348
Saklespur	256	13	19	26	137	451	230
Arsikere	10	8	16	66	14	114	183
Arkalgud	30	8	5	44	73	160	193
Hole-Narsipur	26	5	8	95	70	204	19
Total	1,100	2,211	504	2,405	2,437	8,657	...
Total for 1925-26	1,369	1,951	395	896	2,059	...	6,700

Statement showing the work done in each Veterinary Institution  
in the State, for the year 1926-27.

Area	Fresh cases admitted	Total attended	Castrations	Operations
Bangalore .. .. .	5,688	13,530	176	658
Dodballapur .. .. .	1,926	3,247	99	150
Anekal .. .. .	1,370	3,482	131	107
Channaspatna .. .. .	2,337	5,432	144	228
Kankanhalli .. .. .	565	1,868	40	61
Magadi .. .. .	460	1,051	33	26
Mysore .. .. .	3,152	8,818	70	303
Hunsur .. .. .	1,365	3,323	123	56
Nagamangala .. .. .	1,152	2,214	69	106
Yedatore .. .. .	535	1,763	37	32
Chamrajnagar .. .. .	2,119	4,288	46	201
Malvalli .. .. .	1,128	2,914	79	143
Tumkur .. .. .	3,653	8,999	437	322
Tiptur .. .. .	1,574	3,852	103	55
Sira .. .. .	628	1,602	8	63
Maddagiri .. .. .	1,854	3,919	169	346
Kolar .. .. .	1,367	3,309	61	146
Chikballapur .. .. .	1,731	4,041	73	241
Chintamani .. .. .	2,005	4,671	87	221
Kolar Gold Fields .. .. .	410	12	5	17
Shimoga .. .. .	3,846	7,021	83	239
Sagar .. .. .	1,574	3,424	18	51
Shikarapur .. .. .	2,070	3,865	71	123
Channagiri .. .. .	1,803	4,106	38	94
Tirthahalli .. .. .	1,577	3,503	16	61
Chitaldrug .. .. .	1,144	2,865	78	161
Davangere .. .. .	1,306	3,769	34	60
Hosdurga .. .. .	1,560	4,627	64	151
Jagalur .. .. .	545	1,294	6	27
Challakere .. .. .	2,120	3,223	165	83
Chikmagalur .. .. .	2,746	5,350	93	127
Tarikere .. .. .	1,830	4,151	61	34
Mudgere .. .. .	1,016	3,186	63	44
Hassan .. .. .	3,183	6,298	312	158
Saklespur .. .. .	1,374	3,357	22	45
Araikere .. .. .	1,495	4,089	153	137
Arkalgud .. .. .	1,314	2,927	79	83
Hole-Narsipur .. .. .	1,615	3,335	88	141
<b>Total</b> .. .. .	<b>67,137</b>	<b>1,53,265</b>	<b>3,454</b>	<b>5,311</b>
<b>Total for 1925-26</b> .. .. .	<b>56,115</b>	<b>1,26,909</b>	<b>2,573</b>	<b>4,109</b>

Statement showing the number of Inoculations done against  
Epidemic Diseases in the State during the year 1926-27.

Area	Rinderpest		Black- quarter	Haem. Sept	Anthrax	Total 1926-27	Total 1925-26
	S. A.	S. S.					
Bangalore	621	806	819	...	238	2,484	3,828
Dodballapur	1,863	180	1,809	...	359	4,211	8,572
Anekal	6	...	1,607	...	702	2,117	1,643
Channapatna	515	38	3,908	...	66	4,527	3,503
Kankanhalli	...	425	1,968	...	...	2,393	...
Magadi	...	...	1,034	...	...	1,034	...
Mysore	3,104	2,909	2,477	...	433	8,923	5,766
Hunsur	3,356	1,081	812	...	...	5,249	20,771
Nagamangala	672	242	3,990	...	...	4,904	6,000
Yedatore	812	574	...	...	...	1,386	...
Chamrajnagar	651	2,898	3,355	...	62	6,966	512
Malvalli	310	333	1,504	116	735	2,998	2,417
Tumkur	190	...	3,269	...	...	3,459	11,883
Tiptur	436	...	1,788	...	...	2,224	1,836
Sira	...	...	948	...	...	948	...
Maddagiri	...	...	3,012	...	...	3,012	2,313
Kolar	...	...	2,193	...	836	3,029	236
Chikballapur	...	...	2,498	...	90	2,588	1,364
Chintamani	...	623	2,492	...	902	4,217	1,485
Kolar Gold Fields	...	...	141	...	140	281	...
Shimoga	...	...	263	...	...	263	3,132
Shikarpur	249	45	...	323	...	617	303
Sagar	145	1,040	...	...	...	1,185	1,361
Tirthahalli	206	146	...	709	290	1,351	378
Channagiri	979	453	43	...	58	1,533	3,559
Chitaldrug	585	419	1,348	...	283	2,635	8,910
Davanigere	527	662	130	...	...	1,319	8,261
Jagalur	...	316	236	...	400	951	...
Ohallakere	179	642	2,205	...	158	3,184	794
Hosdurga	426	991	398	...	...	1,815	814
Chikmagalur	139	4,000	19	...	80	4,238	2,639
Tarikere	886	33	45	...	...	964	2,130
Mudgere	108	343	...	81	...	532	1,161
Hassan	2,521	1,881	354	551	120	5,427	6,798
Saklespur	1,113	2,275	511	...	...	3,899	8,919
Arsikere	823	265	1,290	...	...	2,378	5,850
Arkalgud	2,597	542	1,153	...	...	4,292	9,067
Hole-Narasipur	477	398	2,903	458	...	4,231	413
Total for 1926-27 ...	24,498	24,555	50,521	2,238	5,952	1,07,764	...
Total for 1925-26...	39,912	66,630	24,556	1,617	3,898	...	1,36,153

854 Sheep-pox.

369 Mallein.

Statement showing details of Breeding Bulls stationed in different parts of the State for the year 1926-27.

Serial number	Head quarters	Number of current bull	Number of miles travel- led during the year	Number of stationary bulls	Number of halting places		Number of days spent on tour	Number of Fresh cows covered		Number of repeated coverings	Highest number of coverings during any one day	Daily average coverings	No of cowslays which could not be covered on account of excessive numbers	Total No of fresh cover- ings by each bull	Remarks
					During the year	On each round		At head- quarter	On tour						
1	Bangalore...	..	..	No 16	..	..	..	898	..	75	5	..	..	898	
2	Do ..	..	..	No 21	..	..	..	178	..	65	4	..	..	178	
3	Do ..	..	..	No 6	..	..	..	4	..	4	1	..	..	4	The bull died on 10th July 1926.
4	Pooballapur..	..	..	No. 1	..	..	..	81	..	7	3	..	..	81	
5	Kolar ..	..	..	No. 2	..	..	..	59	..	9	2	..	..	59	
6	Do ..	..	..	No. 9	..	..	..	51	..	7	1	..	..	51	Sold on 16th June 1927.
7	Tumkur ..	..	..	Sivaganga	..	..	..	59	..	19	2	..	..	59	
8	Do ..	..	..	Stranghat	..	..	..	86	..	12	2	..	..	36	Castrated on 26th April 1927
9	Maddagiri ..	..	..	No 14	..	..	..	70	..	23	2	..	..	70	
10	Tumkur ..	..	..	Buffalo	..	..	..	173	..	28	4	..	..	161	
11	Kolar ..	..	..	Do	..	..	..	27	..	2	2	..	..	57	
12	Shimoga ..	..	..	..	..	..	..	9	86	2	1	..	..	45	
13	Do ..	Farm bull	88	No. 19	..	..	..	89	..	3	1	..	..	89	This was auctioned on 31st June 1927
14	Chitaldrug..	..	..	Small bull	..	..	..	107	..	99	3	..	..	107	
15	Do ..	..	..	Big bull	..	..	..	90	..	19	2	..	..	90	
16	Hassan ..	..	..	No 1	..	..	..	145	..	80	4	..	..	145	
17	Do ..	..	..	Buffalo bull	..	..	..	..	..	..	..	..	..	..	
18	Do ..	..	..	No. 10	..	..	..	84	..	82	3	..	..	84	
19	Chikmagalur	..	..	Municipal bull.	..	..	..	..	..	..	..	..	..	..	Auctioned on 18th April 1927
19	Chikmagalur	..	..	No. 11	..	..	..	37	..	..	1	..	..	37	

Statement showing the percentage of Cattle Mortality Returns received from the Patels during the year 1926-27.

Serial No.	Name of District	Average percentage of cattle mortality returns received from Patels	Remarks
1	Bangalore	69.1	
2	Mysore	66.5	
3	Tumkur	77.2	
4	Kolar	79	
5	Shimoga	70.6	
6	Kadur	78.3	
7	Hassan	59.2	
8	Chitaldrug	72.5	
			Average percentage of returns received for the whole State is 71.6 for 1926-27, 72.3 for 1925-26.

Statement showing the Cattle Mortality in the State from Contagious Diseases during the year 1926-27.

District	Rinderpest	Hemorrhagic Septicemia	Anthrax	Blackquarter	Foot and Mouth	Surra	Red-water	Parasitic diarr- rhea	Other conta- gious diseases	Total
Bangalore	248	100	1,021	2,152	115	..	15	284	477	4,412
Mysore	2,131	199	708	1,812	61	..	9	533	547	5,600
Tumkur	50	93	602	2,864	118	..	2	192	1,354	5,275
Kolar	173	83	1,146	1,670	135	2	..	85	1,965	5,359
Shimoga	1,268	167	621	118	76	6	2	109	357	2,724
Hassan	3,212	203	78	761	68	1	73	539	200	5,135
Kadur	3,515	49	79	87	71	1	..	106	67	3,975
Chitaldrug	1,734	61	432	678	34	1	21	34	351	3,336
Grand Total ..	12,321	955	4,687	10,142	678	11	122	1,882	5,118	35,916
Grand Total for 1925-26.	34,228	771	3,308	3,972	556	14	29	1,788	4,105	43,776