

55
ANNUAL REPORT 4

ON THE

PUNJAB VETERINARY COLLEGE,
CIVIL VETERINARY DEPARTMENT,
PUNJAB,

AND THE

GOVERNMENT CATTLE FARM, HISSAR,

For the year 1919-20.



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1920.

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**Annual Report on the Punjab Veterinary
College, Civil Veterinary Department,
Punjab, and the Government Cattle
Farm, Hissar, for 1919-20.**

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For the year 1919-20.



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PRINTED BY THE SUPERINTENDENT, GOVERNMENT PRINTING, PUNJAB
1920.

ANNUAL REPORT

1900

BOARD OF TRUSTEES

OF THE UNIVERSITY OF CALIFORNIA

SAN FRANCISCO

1901

PRINTED BY THE UNIVERSITY PRESS

1901

TABLE OF CONTENTS.

| Para. | Subject. | Page. |
|-------|---|------------|
| | NOTE ON VETERINARY PROGRESS IN THE PUNJAB BY THE DIRECTOR OF AGRICULTURE. | 1-5 |
| — | | |
| | REPORT ON THE PUNJAB VETERINARY COLLEGE FOR THE YEAR 1919-20. | |
| 1 | Gazetted Staff... .. | 6 |
| 2 | Non-Gazetted Staff | <i>ib.</i> |
| 3 | Sessions | <i>ib.</i> |
| 4 | Admissions | 7 |
| 5 | Course of Study | <i>ib.</i> |
| 6 | Post Graduate Instruction | <i>ib.</i> |
| 7 | Examination results | <i>ib.</i> |
| 8 | Dressers' class... .. | 8 |
| 9 | Farriers' class | <i>ib.</i> |
| 10 | Hospital | <i>ib.</i> |
| 11 | Contagious Ward | <i>ib.</i> |
| 12 | Income | 9 |
| 13 | Expenditure | <i>ib.</i> |
| 14 | } General remarks | <i>ib.</i> |
| 15 | | |
| | REPORT OF THE CIVIL VETERINARY DEPARTMENT, PUNJAB, FOR THE YEAR 1919-20. | |
| | Part I.—Administration. | |
| 1-5 | General Administration | 9-12 |
| | Part II.—Treatment of Disease, | |
| | 1.—CONTAGIOUS DISEASES. | |
| 6 | Mortality—Table II | 12 |

| Para. | Subject. | Page. |
|--------------------------------|--|------------|
| 1 (a).— <i>Equines.</i> | | |
| 7 | Glanders—Table II | 13 |
| 8 | Anthrax—Table II | <i>ib.</i> |
| 9 | Surra—Table II | <i>ib.</i> |
| 10 | Dourine—Table II | 14 |
| 11 | Other contagious diseases—Table II | <i>ib.</i> |
| 1 (b).— <i>Bovines.</i> | | |
| 12 | Rinderpest—Table II | <i>ib.</i> |
| 13 | Anti-Rinderpest Inoculations—Table III | <i>ib.</i> |
| 14 | Foot and Mouth diseases—Table II | 15 |
| 15 | Hæmorrhagic Septicæmia—Table II | <i>ib.</i> |
| 16 | Preventive Vaccinations—Table II | <i>ib.</i> |
| 17 | Preventive Inoculations—Table III | <i>ib.</i> |
| 18 | Black Quarter—Table II | <i>ib.</i> |
| 19 | Vaccinations against black quarter—Table III | 16 |
| 20 | Other contagious diseases—Table II | <i>ib.</i> |
| 1 (c).— <i>Other Animals.</i> | | |
| 21 | Mortality—Table II | <i>ib.</i> |
| II.—OTHER DISEASES. | | |
| 22 | Treatment of diseases in villages—Table IV | <i>ib.</i> |
| III.—VETERINARY HOSPITALS. | | |
| 23 | Number of Veterinary Hospitals—Table V | 17 |
| 24 | Work at the hospitals—Table V | <i>ib.</i> |
| 25 | Building of Veterinary Hospitals | <i>ib.</i> |
| Part III.—Breeding Operations. | | |
| I.—BOVINES. | | |
| 26 | Stud bulls—Table VIII | 17-19 |
| II.—EQUINES. | | |
| 27 | Number of Stallions—Table X | 19 |
| 28 | Services of Horse, Pony and Donkey Stallions— Table XI. | 20 |
| 29 | Feed and Keep of Stallions—Table XII | <i>ib.</i> |

| Para. | Subject. | Page. |
|-------|---|------------|
| 30 | III.—SHEEP AND GOAT BREEDING. | 20 |
| | IV.—FAIRS AND SHOWS. | |
| 31 | Fairs and Shows—Tables XIII and XIV ... | 21 |
| | V.—MISCELLANEOUS. | |
| 32 | Cattle Insurance | <i>ib.</i> |
| | Part IV.—Establishment. | |
| 33 | Numerical Strength—Table VII | <i>ib.</i> |
| | Part V.—Expenditure. | |
| 34 | Expenditure—Table XIV-A | 22 |
| | Part VI.—General Remarks. | |
| 35 | General Remarks | <i>ib.</i> |
| | REPORT ON THE GOVERNMENT CATTLE FARM, HISSAR, FOR 1919-20. | |
| | REPORT BY MR. BRANFORD, SUPERIN- TENDENT, CATTLE FARM, HISSAR. | |
| 1-7 | General | 23-24 |
| 8 | Contagious diseases— | |
| | (a) Black Quarter | 24 |
| | (b) Equine Contagious Abortion | <i>ib.</i> |
| | (c) Foot and Mouth disease | <i>ib.</i> |
| | (d) Hæmorrhagic Septicæmia | 25 |
| | (e) Piroplasmosis | <i>ib.</i> |
| | (f) Navel ill | <i>ib.</i> |
| | (g) Rinderpest | <i>ib.</i> |
| 9 | Farm Stock during the year— | |
| | Herd bulls | <i>ib.</i> |
| | Supernumerary bulls | <i>ib.</i> |
| | Male produce | <i>ib.</i> |
| | Cows | <i>ib.</i> |
| | Heifers | 26 |
| | Bullocks | <i>ib.</i> |

| Para. | Subject. | Page. |
|-------|--|------------|
| | Farm Stock during the year— <i>concl'd</i> — | |
| | Mules | 27 |
| | Arab Breeding Scheme... .. | <i>ib.</i> |
| | Donkey Stock | <i>ib.</i> |
| | Mule breeding mares | 28 |
| | Sheep | <i>ib.</i> |
| 10 | Cultivation | 29 |
| 11 | Veterinary Hospital | 30 |
| 12 | Feeding Experiments | <i>ib.</i> |
| 13 | General | 31 |
| 14 | Description of Photos | <i>ib.</i> |

From—The Hon'ble Mr. E. JOSEPH, I.C.S., Revenue Secretary to Government, Punjab,

To—The Secretary to the Government of India, Department of Revenue and Agriculture.

I AM directed to submit, for the information of the Government of India, a copy of the annual report on the Punjab Veterinary College, Civil Veterinary Department, and Government Cattle Farm at Hissar for the year 1919-20, together with a note on veterinary progress in the Punjab by the Director of Agriculture, Punjab.

2. The staff of the College, which was depleted during the war, was strengthened by the addition of Captains Sewell and Dowland as Post graduate Professor and Professor of Sanitary Science, respectively. Lieutenant-Colonel Walker took over charge of the post of Principal in July 1919 from Colonel Pease, who thus terminated a connexion with the College that extended at different periods over 21 years during which great development and advance resulted from his ability and energy. Mr. Burke, I.S.O., Professor of Surgery, also retired with a meritorious record of 37 years' service in the Veterinary Department. By the death (which occurred after the close of year under report) of Khan Bahadur Saiyad Mehtab Shah, Professor of Anatomy and Physiology, the College has lost a highly capable and efficient teacher who had devoted his energies for 33 years to the service of the Province. Eighty-one new students were admitted to the College against 78 in the previous year. Altogether 217 students presented themselves in the various annual examinations, the results of which were satisfactory. The post-graduate class, which it was intended to re-open during the year under review, could not be started owing to lack of candidates. The revised course of studies which has been approved by the Government of India demands better educational qualifications from the students who enter the College, as admission will be open only to those who have passed the Matriculation examination or an equivalent standard and instruction will be imparted in English. The question of affiliation of the College to the Punjab University and constitution of a veterinary faculty is under the consideration of Government.

3. The number of in-patients and out-patients treated in the hospital attached to the College shows a slight decrease from the previous year although the attendance at the dog hospital increased by 164 in-patients and 35 out-patients. The delay in the opening of the Branch Veterinary Hospital in Aitchison Ganj is unsatisfactory.

4. There was a comparatively high mortality from contagious diseases amongst cattle, rinderpest accounting for 42,155 deaths against 20,842 in the previous year. This is attributed to a low vitality consequent on shortage of fodder which decreases the ability to resist disease. The number of deaths from foot and mouth disease was 2,592 against 536 in the year 1918-19 and hæmorrhagic septicæmia was responsible for 6,319 deaths against 5,349.

While it is a matter of gratification that vaccinations against hæmorrhagic septicæmia are increasing in popularity it is to be regretted that inoculation against rinderpest had to be restricted owing to the shortage of serum. The Punjab is largely an agricultural province and the agriculturists' stock in trade consists to a large extent of his cattle. It is, therefore, essential that outbreak of disease amongst cattle should be prevented at the earliest opportunity, and the Lieutenant-Governor trusts that local officers will insist on prompt reports by the Patwari staff of the outbreak of disease.

Amongst equines 15 cases of glanders were dealt with in the Gurdaspur District by the Civil Veterinary Department, and three cases in the Rawalpindi District by the Army Remount Department. Surra was prevalent in the districts of Ferozepore, Shahpur, Gujrat, Amritsar, and Dera Ghazi Khan, and the steps taken by the Department to combat this disease, in spite of the shortage of staff, are creditable. Fortunately no case of dourine occurred during the year.

5. The number of veterinary hospitals in the Province increased by two and is now 131, in addition to which there are six dispensaries. A sum of Rs. 48,000 has been allotted for the construction of new hospital buildings and improvement of the existing ones. These institutions are increasing in value and popularity, and the number of patients continues to rise. There is room for many more veterinary hospitals, and Sir Edward Maclagan hopes that private munificence will be forthcoming to supplement public expenditure in this direction. Cattle Insurance Societies are being promoted in several districts in the Province, and the inhabitants of the Rohtak District are anxious to start re-insurance unions in order to save the primary societies from ruin in case of serious outbreak of epidemics.

The question of a financial guarantee by Government to such unions will shortly be referred to the Government of India.

6. The progress already achieved in cattle-breeding is creditable to the Civil Veterinary Department. The number of stud bulls working in the Province increased by 82 to 1,352, and 198 bulls were sent out by the Government Cattle Farm at Hissar. The scheme for subsidising selected owners of the Dhanni bulls has worked satisfactorily and the Lieutenant-Governor is pleased to observe that the Chief Superintendent is hopeful of reviving the breed which showed signs of extinction a short time ago.

The popularity of three-quarter and half-bred merino rams continues and during the year under review the Hissar Farm supplied 110 rams to private individuals and three to the Jullundur District Board.

7. Mr. Branford is again to be congratulated on his successful management of the Hissar Cattle Farm, which enjoyed a healthy year. Owing to the absence of grazing from the 1st of April to August, stall-feeding had to be resorted to, and the cows were consequently not in very good condition. The profit and loss account showed a loss of Rs. 29,766 against a profit of Rs. 11,534 in the previous year. This is attributable to high price of gram, increased expenditure on stall-feeding, grant of various kinds of allowances to the employees, restricted sowings in 1918, and the consequently smaller outturn of the oats crop.

8. Although the Province has been fortunate in obtaining a number of promising recruits the year under report and the months immediately following it have laid a heavy hand on the veterinary services. Colonel Farmer, C.I.E., broke down in health towards the close of the year and proceeded on leave in March. It was hoped that rest, if it did not restore his full energy would at least prolong his life, but news of his death at Home reached India a short time ago. His administration of the Department was always characterised by ability and enthusiasm, and the Lieutenant-Governor has little doubt that he sacrificed his health to the work in which he was so interested. In him the Government has lost a very capable officer and the Department and the people of the Province a most sympathetic friend. The retirement of Colonel Pease and

of Mr. Burke and the death of Saiyad Mehtab Shah have already been recorded. Captain Morris retired from the Hissar Cattle Farm after 32 years' service there. Death robbed the Farm of the services of Mr. MacCutchan and the Province of those of Captain Daunt Meadows, the Camel Specialist. Mr. George Taylor was transferred to Bombay on the return to the Punjab of Colonel Walker.

9. His Honour's thanks are also due to the officers of all grades of the Department for the efficient manner in which they have discharged their respective duties.

Note on the Veterinary progress in the Punjab by the Director of Agriculture, Punjab.

LIEUTENANT-COLONEL WALKER took over charge of the post of Principal of the Punjab Veterinary College from Colonel Pease on 20th July 1919, and he has initiated

many reforms with characteristic energy and administrative ability. Captains Sewell and Dowland joined on October 15th and the 1st December 1919, as Post Graduate Professor and Professor of Sanitary Science respectively. Mr. Burke, I. S. O., Professor of Surgery, retired on March 31st, afternoon, after a meritorious service of more than 10 years in the College. Captain Dowland is now working as Professor of Surgery in addition to his own duties, and it is understood that the Secretary of State is recruiting an Imperial Officer to fill the vacancy. The death of Khan Bahadur Syed Mehtab Shah, Professor of Anatomy and Physiology, on 28th May 1920, is regretted. Revision of salaries is under the consideration of the Government. There were 81* admissions as against 78 last

| | | |
|-----------------------------------|--------|--------------------|
| *Indian Cavalry | ... 28 | } 3 years' course. |
| Remount Department | ... 8 | |
| Imperial Service Troops | ... 3 | |
| State nominees | ... 7 | |
| Central Provinces and Berar | ... 5 | |
| United Provinces of Agra and Oudh | ... 4 | |
| Baluchistan | ... 2 | |
| District Boards, Punjab | ... 6 | |
| Punjab Civil Students | ... 18 | |
| Total | ... 81 | |

year : 57 for 3 years' course and 24 for 4 years' course. The four years' course was however abandoned. Fifty-six men passed the final examination (3 years' course) and out of these 17 were Punjab

Civilian Students. The post-graduate course was held in abeyance. Colonel Walker has drawn up an outline scheme for a 4 years' course, which has been approved by the Government of India. He has latterly drawn up a syllabus, which is being sent up. Instruction will be in English.

The plans and estimates for the new hostel are being sent up to Government for administrative approval. The present hostel has been put in charge of an Assistant Professor and Colonel Walker has made many other improvements. Colonel Walker has declined to have anything to do with the Branch Veterinary Hospital at Aitchison Ganj, Lahore, as he considers, I think rightly, that his duties are educational only. Mr. Quirke has now examined the pro-

posals, and I have sent a draft agreement of the lines of working to the Municipal Committee.

2. Colonel Farmer, Chief Superintendent, proceeded on 8 months leave on 22nd March 1920, and Mr. Quirke has, except for a very brief interregnum, officiated since that date. Should Colonel Farmer not return the Province will have lost its most enthusiastic Veterinary Officer. Mr. Garewal is holding charge of the North Punjab and though he has not been in the best of health appears to take a keen interest in his work. Captain Doyle joined the Department on 28th March 1920, and has been posted to the Government Cattle Farm, Hissar, for training.

3. The figures of deaths from contagious diseases are given below:—

| Equines | BOVINES. | | | | |
|---------|------------|------------------------|------------------------|----------------|----------------------------|
| | Rinderpest | Foot and mouth disease | Hæmorrhagic septicæmia | Black-quarter. | Other contagious diseases. |
| 87 | 42,155 | 2,592 | 6,319 | 242 | 516 |

This should be compared with the table of mortality from contagious diseases given in my note last year. The mortality from rinderpest is about 3 per thousand. Deaths among inoculated cattle during outbreaks were 1 per thousand.

4. I have communicated to District Boards the grants allotted to them out of the sum of Rs. 48,000 devoted to Veterinary purposes from the wheat profits grant.

5. The 2 variables which have to be considered are quantity and quality, and the position in respect to both is unsatisfactory. This must not be understood as criticism of the past efforts of the Civil Veterinary Department, which has been for the purpose in question without staff and organisation. But because a man is swimming it does not follow he is getting any nearer the shore. The tide may be running strongly

against him, and his bearings may be in error. I have made proposals elsewhere in an aperçu of the situation, for obtaining our bearings and accelerating our rate of progression. The shortage of quantity in farm and dairy stock is indicated by the following figures :—

| — | | 1914. | 1920 | Decrease. |
|--------------------|-----|-----------|-----------|-----------|
| | | Millions. | Millions. | Millions. |
| Bulls and bullocks | ... | 4.6 | 4.0 | 0.6 |
| Cows | ... | 3.7 | 2.7 | 1.0 |
| She-buffaloes | ... | 2.7 | 2.4 | 0.3 |
| Total | ... | 11.0 | 9.1 | 1.9 |

Apart from the loss in plough power, the decrease of 9.5 millions tons per annum in the already inadequate supply of farm yard manure, must tend to produce lower crop yields. This quantity of manure would in fact suffice to manure a million acres of land each year.

The decrease is not caused apparently by exports, which amount after deducting imports, to 80,000 only in the period 1914-15 to 1918-19, or to the reported deaths from contagious disease, which for the period 1914-15 to 1919-20 number about 160,000. I am of opinion that an annual census of cattle is desirable during the next few years, and that in selected areas at any rate the births and deaths should be reported continuously.

Want of space precludes me from noting on the details of the work of the Civil Veterinary Department in relation to cattle-breeding, but that it has not been idle is shown by the fact that there are now 1,352 bulls chiefly from the Government Cattle Farm, Hissar, at stud in the Province, as against half that number, 637, at the end of 1914. The requirements of the Province, as I have pointed out elsewhere, are about 50,000 stud bulls. For such advance as has been made much credit is due to Colonel Farmer, who was never tired of pointing out to District Boards how serious was their neglect of cattle-breeding.

I must refer especially to the grants for the breeding of Dhanni Cattle of 4,200 and 2,880 made by Government from Wheat Profits to the District Boards of Attock and Jhelum. The Rawalpindi District Board has also started a Dhanni breeding scheme without direct assistance.

The numbers of District Board and subsidised Dhanni bulls in these 3 districts at present are—

| | <i>District Board.</i> | | <i>Subsidised.</i> | |
|------------|------------------------|-----|--------------------|--------|
| Attock | ... | ... | 0 | ... 15 |
| Jhelum | ... | ... | 6 | ... 5 |
| Rawalpindi | ... | ... | 6 | ... 1 |

It appears that Government aid will again be necessary if the Dhanni breed is to be saved from a dangerous depletion of numbers.

6. Government is providing some facilities for the breeding of mules in non-selected districts. This will be borne out from the fact that out of the standard scale of 76 donkey stallions 67 are replaceable by Government and 9 from the funds of the respective District Boards.

7. Mr. Branford was Superintendent throughout the year.
The Government Cattle Farm, Hissar.

The death of the Farm Bailiff, Mr. C. E. B. Maccutchan, from heat stroke on 17th June 1919, was a great blow to the farm. Sergeant Read of the Military Grass Farm, Gojra, was appointed in his place.

Captain Morris, Deputy Superintendent, Government Cattle Farm, Hissar, retired from Government service on 31st March 1920, afternoon. He will be greatly missed.

Though the rainfall was a little below average the growth of Bir grasses was on the whole up to average. Owing to absence of grazing from the 1st of April to August the stock was stall-fed generally. Owing to the general rise in the market price of cattle, the privileged price charged from District Boards in the Punjab for a bull was raised from Rs. 200 to Rs. 250, with effect from 1st April 1920.

There was a great demand for the stock outside India.

Photographs of farm stock have been included in the report, and are really more valuable than double the amount of printed matter usually is.

Attention should be drawn to Mr. Branford's observation of the effect of insufficient food in reducing the fertility of cattle.

Mr. Branford's administration of the farm is thoroughly efficient, and his knowledge of cattle-breeding is one of the assets of the Province.

S. M. JACOB,

*Dated 3rd August 1920. Offg. Director of Agriculture,
Punjab.*

Annual Report of the Punjab Veterinary College, Lahore, for the year 1919-20.

DURING the year under report the staff of Gazetted officers underwent some important changes.

Colonel H. T. Pease, C.I.E., Veterinary Department, after many years of devoted service as Principal of the College and Professor of Equine Medicine, proceeded on leave pending retirement on July 1st. He was succeeded by Lieutenant-Colonel G. K. Walker, C.I.E., O.B.E, who took over charge on July 20th.

Mr. E. Burke, I.S.O., who had completed 37 years' service in the department, of which about eleven had been spent at the College as Professor of Surgery, retired on March 31st. He was a very efficient and popular officer and he will be greatly missed. No permanent successor has been appointed up to the date of the submission of this report.

Captains Sewell and Dowland, on appointment to the department, joined the staff on October 15th and 1st December (afternoon), respectively. The former took over the appointment of Post Graduate Professor and the latter that of Professor of Sanitary Science and remained under training. The other officers of the staff retained the appointments held by them during the previous year throughout the year under report.

2. The non-gazetted teaching staff was short-handed owing to the lack of suitable applicants on the terms offered. The matter has been represented and a revision of salaries is under consideration.

Sardar Hardit Singh performed the duties of Lecturer in Botany and Chemistry in addition to his own.

M. Karam Ellahi was appointed Hostel Superintendent in addition to his own duties.

3. The summer session commenced on May 1st and closed on June 30th. The winter session opened on October 1st and concluded at the end of the year under report.

4. There were 81 admissions on May 1st as detailed in last year's report.

Admissions.

5. At the beginning of the winter session it was decided to abandon definitely the four years' course as at present conducted.

Course of study.

It had been practically in abeyance since its inception for reasons connected with the war and shortage of staff.

Those students who had passed the three years' course examinations were given their diplomas and the remainder were absorbed in the three years' course. Proposals were made for a revised course involving four years' study in English, the preliminary examination being the matriculation qualification or its equivalent. The proposals have been accepted by the Local Government and cordially approved by the Government and of India. They will be brought into force when the necessary arrangements have been made.

6. The post graduate course did not materialise owing to lack of candidates, but three Veterinary Assistants from the Behar and

Post graduate instruction.

Orissa Civil Veterinary Department were given special instruction.

A scheme for imparting post graduate instruction has been embodied in the revised course of study and will be instituted in due course. In the meantime the necessary preparations are being made.

7. Supplementary examinations were held in June for those students who had failed in one subject only in the annual examinations.

Examination results.

The results were as follows:—

| | | | | |
|----------|-----|------------|-----|-------------|
| 1st year | ... | 1 examined | ... | Nil passed. |
| 2nd " | ... | 7 " | ... | 3 " |
| 3rd " | ... | 6 " | ... | 4 " |

Those who passed were promoted, whilst those who failed went down for another year.

The results of the annual examinations held in March and April 1920 were as follows:—

| | | | | |
|----------|-----|-------------|-----|------------|
| 1st year | ... | 80 examined | ... | 63 passed. |
| 2nd " | ... | 73 " | ... | 62 " |
| 3rd " | ... | 64 " | ... | 56 " |

The percentage of passes was 78·7, 84·8 and 87·5 per cent. respectively.

The Board of Examiners reported that they considered the results very satisfactory.

In the first year 7, in the second year 1 and in the third year 2 students failed in one subject only and will be examined again at the supplementary examinations in June.

8. Four Dressers were trained during the summer vacation.
Dressers' Class.

9. Mr. Duckworth was appointed Head Farrier on July 31st and the forge was re-opened to the public on August 1st. The farriers' class was restarted from 1st October and 7 men were trained.
Farriers' Class.

10. The attendance at the Hospital Clinic showed a slight decrease over last year, the figures being 1,280 in-patients and 1,904 out-patients against 1,321 and 2,166, respectively. The increased expense involved in feeding and maintaining domestic animals in Lahore and the increase in mechanical transport may be held accountable.
Hospital.

There was an increase in the attendance at the dog hospital by 164 in-patients and 35 out-patients.

11. One hundred sixty cases were treated in the Contagious Ward against 110 last year. Thirty-five dogs were successfully subjected to anti-rabic treatment. The Jail and Vaccine Depot animals were periodically inspected as usual. Original investigations were conducted in diseases of sheep.
Contagious Ward.

12. The income during the year amounted to Rs. 20,612
 against Rs. 21,239 in the previous year.
 Income. The decrease is due to the forge having
 been closed for part of the year.

The outstandings amounted to Rs. 1,791. Every effort
 is being made to realise the money, but some accounts are of
 long standing and will have to be written off.

13. The expenditure for the year amounted to
 Rs. 1,34,882 against Rs. 1,08,0²/₄ in
 Expenditure. the previous year. The salaries of the
 newly appointed officers, the temporary allowances granted
 to the members of the staff, and the general rise in prices
 account for the increase.

14. The behaviour of the students was generally satis-
 factory and their health on the whole
 General remarks. good.

The average number residing in the hostel was 159.

Every effort has been made to make the present tem-
 porary arrangements satisfactory and some improvements
 have been made, but considerable difficulty is experienced
 in meeting messing expenses from the balance of fees re-
 maining for that purpose.

A proposal to reduce the rent payable to Government
 was rejected.

Plans and estimates for a new hostel are being pre-
 pared.

The play-ground is nearing completion and should be
 ready for use next winter.

15. The members of the staff gave the Principal their
 loyal support and worked to his satisfaction throughout the
 year.

**Report of the Civil Veterinary Department,
 Punjab, for the year 1919-20.**

By MR. T. F. QUIRKE, M.R.C.V.S., CHIEF
 SUPERINTENDENT.

PART I.—Administration.

1. The following statement shows the names of officers
 who held charge of the several appointments and the amount

of touring performed by them during the year under report :—

| Name of appointment. | Name of officer. | Dates of holding charge. | Number of days spent on tour. | NUMBER OF MILES | |
|---|---------------------------|---|-------------------------------|-----------------|----------|
| | | | | By rail. | By road. |
| Chief Superintendent, Civil Veterinary Department, Punjab. | Colonel J. Farmer, C.I.E. | 1st April 1919 to 22nd March 1920. | 110 | 6,279 | 1,169 |
| Officiating Chief Superintendent, Civil Veterinary Department, Punjab. | Mr. T. F. Quirke... | 23rd March 1920 to 31st March 1920. | 8 | 936 | ... |
| Officer on special duty .. | Ditto ... | 5th February 1920 to 22nd March 1920. | 19 | 1,465 | 135 |
| Ditto ... | Mr. R. Branford ... | 2nd February 1920 to 6th February 1920. | ... | ... | ... |
| Officer under training ... | Mr. J. S. Garewal | 1st April 1919 to 6th May 1919. | 7 | 147 | 58 |
| Superintendent, Civil Veterinary Department, South Punjab. | Mr. G. Taylor ... | 1st April 1919 to 5th July 1919. | 36 | 1,490 | 76 |
| Officiating Superintendent, Civil Veterinary Department, South Punjab. | Rai Sahib Lala Kotu Ram. | 6th July 1919 to 31st March 1920. | 187 | 12,997 | 2,083 |
| Deputy Superintendent, Civil Veterinary Department, South Punjab. | Ditto | 1st April 1919 to 5th July 1919. | 43 | 2,508 | 234 |
| Officiating Deputy Superintendent, Civil Veterinary Department, South Punjab. | Pandit Janki Nath | 5th September 1919 to 31st March 1920. | 139 | 6,542 | 1,405 |
| Superintendent, Civil Veterinary Department, North Punjab. | Mr. T. F. Quirke... | 1st April 1919 to 26th May 1919. | 27 | 1,328 | 304 |
| Officer under training .. | Mr. J. S. Garewal | 8th May 1919 to 26th May 1919. | ... | ... | ... |
| Officiating Superintendent, Civil Veterinary Department, North Punjab. | Ditto | 27th May 1919 to 31st March 1920. | 93 | 6,792 | 601 |

On reversion from military service Mr. D. Meadows was appointed to officiate as Camel Specialist incharge of the Sohawa Laboratory. It is with regret information was

received of his death from drowning on 11th October 1919, his untimely death is a great loss to the Department.

Colonel Farmer, C.I.E., Chief Superintendent, proceeded on 8 months' combined leave with effect from 22nd March 1920 after handing over charge to Mr. T. F. Quirke who held the appointment upto the end of the year. The latter held charge of the appointment of Superintendent, Civil Veterinary Department, North-West Frontier Province and North Punjab, with effect from 1st April 1919 to 26th May 1919. He remained on combined leave from 27th May 1919 to 4th February 1920 and worked as an officer on special duty from 5th February 1920 to 22nd March 1920.

The most important change in the Imperial staff was the transfer of Mr. G. Taylor to Poona as Superintendent, Civil Veterinary Department, Bombay Presidency. He was relieved by Rai Sahib Lala Kotu Ram on the afternoon of 5th July 1919. The latter remained incharge of the South Punjab Circle upto the end of the year under report.

Pandit Janki Nath, Veterinary Inspector, attached to the office of the Superintendent, Civil Veterinary Department, South Punjab, Ferozepore, officiated as Deputy Superintendent in place of Rai Sahib Lala Kotu Ram for 6 months and 25 days, *i.e.*, 5th September 1919 to 31st March 1920. He was placed in *quasi*-independent charge of the districts of Montgomery, Lyallpur, Jhang, Multan Muzaffargarh and Dera Ghazi Khan with his head-quarters at Ferozepore.

Mr. Garewal remained attached to the offices of Chief Superintendent, Civil Veterinary Department, Punjab, and Superintendent, Civil Veterinary Department, North Punjab, with effect from 1st April 1919 to 6th May 1919 and 8th May 1919 to 26th May 1919, respectively. He relieved Mr. Quirke on the afternoon of 26th May 1919 and officiated as Superintendent, Civil Veterinary Department, North-West Frontier Province and North Punjab from 27th May 1919 to 31st March 1920.

2. The Superintendent, Civil Veterinary Department, North Punjab, continues to hold charge of the North-West Frontier Province Civil Veterinary Department administration. Now that the war is over, the question of the appointment of a separate Superintendent should be taken up as

soon as possible, as it is very difficult for one officer to hold double charge for an indefinite period.

3. As usual the Chief Superintendent, Superintendents and the Deputy Superintendent toured in their respective circles in connection with horse and cattle breeding, investigation of contagious diseases and for the inspection of Veterinary Hospitals, etc.

4. They also interviewed District Officers in the course of their tours on the Veterinary requirements of their districts. District Board bulls and stallions were as usual regularly inspected. In addition to their own work the officers of this department materially assisted the Army Remount Department particularly in connection with Dourine, Surra and other equine diseases.

5. The Chief Superintendent inspected the following hospitals outside his own circle :—

Delhi, Simla, Rawalpindi, Murree, Jhelum, Montgomery, Lyallpur and the Glanders inspection post at Kohala.

He visited the Hissar Farm twice and inspected the following Cattle-breeding Farms in the Lower Bari Doab Colony :—

- (1) Chaudhri Allah Dad Khan's Farm.
- (2) M. Ghulam Qadir Khan's Farm.
- (3) Chaudhri Jabangir Khan's Farm.

He went to Ahmadnagar purchasing mares for the Government Cattle Farm, Hissar; he also attended the Agricultural Meeting at Lyallpur and visited Delhi twice to attend conferences in connection with the prevention of Surra.

PART II.—Treatment of Diseases.

I.—CONTAGIOUS DISEASES.

6. During the year under report 56,089 deaths from contagious diseases were reported in the Province against 28,715 in the previous year. The increase in mortality is chiefly due to severe outbreaks of Rinderpest which occurred.

Mortality—Table II.

I.—(a) *Equines.*

7. During the year under report 15 cases of Glanders were dealt with by this department in the Gurdaspur District against 5 in the Rawalpindi District during the previous year.

Glanders—Table II.

Three cases detected in the Rawalpindi District during the year under report were dealt with by the Army Remount Department.

8. No case of Anthrax was reported during the year under report.

Anthrax—Table II.

9. During the year under report 65 deaths took place from Surra against 70 in the previous year. The number of deaths reported is unreliable as the agency for reporting the disease is inefficient. These statistics merely represent the number of cases of Surra which were confirmed by microscopic examination previous to death.

Surra—Table II.

The disease was most prevalent in Ferozepore, Shahpur, Gujrat, Amritsar and Dera Ghazi Khan Districts. In spite of the shortage of staff the department has endeavoured to deal with all outbreaks reported and has lectured to the people on the necessity of keeping their horse stock away from grazing areas during the day time while the fly period lasts and from collections of cattle and camels which are known to harbour this disease. With a view to getting more assistance from Native States Colonel Farmer delivered a practical lecture to the Ruling Chiefs at a Conference held in Delhi on 31st October 1919. He urged on them the necessity of strengthening their veterinary staff to deal effectively with contagious diseases and asked that the existence of same should be reported punctually to this department with a view to checking spread of the disease. A report was also sent by him to the Principal Veterinary Officer, Army Department, on Surra and Fly Areas to enable the Military Department to recognize the danger in allowing transport and other animals march through these areas during the Surra period.

Once again it is my duty to point out that this disease is a very serious one and until a larger staff is available it will continue to exact a heavy toll amongst camels and

equines especially. The present situation may be compared to a skeleton army attacking a strongly organised force.

10. No case of Dourine was reported during the year under report. A strict look out is kept for this disease at all stallion stables throughout the province and also the opportunity is taken at fairs for the detection of this disease. It is satisfactory to note the success which attended the very thorough measures adopted by this department against the spread of this disease which is capable of paralysing horse-breeding wherever it occurs.

11. One death from Strangles and 3 from Influenza were reported from Ferozepore and Muzaffargarh districts respectively.

Other contagious diseases—Table II.

I—(b) Bovines.

12. Rinderpest occurred in all the districts of the Province. 42,155 deaths were reported from this disease against 20,842 in the previous year. The increase in mortality is mainly due to the debilitating influence caused by the fodder famine and consequent susceptibility of stock generally.

Rinderpest—Table II.

The mortality from this disease was particularly severe in the Shahpur and Kangra districts. Patwaris are still very lax in reporting outbreaks with consequent loss to the villages concerned whilst the work of the Department in dealing with contagious disease is made much more difficult through their neglect.

13. Anti-Rinderpest inoculations were performed in 816 outbreaks and 106,626 animals were inoculated against 653 outbreaks and 106,393 inoculations last year. The number of inoculations would have considerably increased during the year under report if the supply of serum had not been restricted by the Laboratory on account of an unusual demand for this product.

Anti-Rinderpest inoculations—Table III.

Inoculations could not be performed in 670 outbreaks owing to shortage of serum. The Punjab is already self-supporting in the supply of bulls, sheep, donkey stallions and is at present catering for horse stallions to District

Boards, we might go on, further now and arrange for the manufacture of our own serum for which there is an increasing demand.

14. During the year under report 2,592 animals died from this disease against 536 in the previous year. This disease was prevalent in all the districts of the province except Montgomery. Kangra suffered most where 416 deaths took place. Necessary measures to check the disease were adopted by the subordinate veterinary staff as usual.

15. *Hæmorrhagic Septicæmia* accounted for 6,319 deaths against 5,349 in the previous year. With the exception of Simla it was reported from all the districts of the province.

This disease runs such a rapid course wherever it occurs that patwaris should promptly report its occurrence so that inoculations can be carried out as soon as possible to have much influence on the mortality from this disease.

16. *Hæmorrhagic Septicæmia* vaccinations were performed on 57,336 animals in 18 districts against 52,464 in 19 districts during the previous year. The highest number of vaccinations was, like last year, done in the Multan District where 26,545 animals were vaccinated against this disease.

Vaccinations against *Hæmorrhagic Septicæmia* is steadily becoming more and more popular each year owing to the very satisfactory results which have been attained, so much so, that it has now become customary to receive reminders from certain low lying villages liable to this disease to have vaccination work done before the rainy season commences. The further extension of such preventive methods in dealing with disease will depend on the staff available to carry out this work.

17. Preventive inoculations against *Hæmorrhagic Septicæmia* were performed in 73 outbreaks and 18,741 animals were inoculated against 56 outbreaks and 16,432 inoculations during the preceding year.

18. During the year under report 242 deaths were reported from this disease against 608 in the previous year.

19. Vaccinations against this disease were performed on 2,912 animals as compared with 14,022 in the previous year.

Vaccinations against Black-quarter—Table III.

The Superintendent, North Punjab, reports very encouraging results from the vaccinations which were carried out against this disease last year in the Dhanni Tract where it is endemic.

20. During the year under report 516 deaths took place from other contagious diseases compared with 296 in the previous year. Six cases of Rabies among bovines are included in the figures of the year under report. These cases took place in Jullundur and Gurdaspur districts.

Other contagious diseases—Table II.

I—(c) Other animals.

21. The following contagious diseases occurred in other animals :—

Mortality—Table II.

Rinderpest, Foot and Mouth, Hæmorrhagic Septicæmia, sheep pox, liver flukes, contagious pleuro, Pneumonia, Rikki (parasitic diarrhœa) Gillar and Mange, etc.

In all 4,178 deaths took place against 1,001 in the previous year.

The necessity of strengthening the staff of this department to deal with the veterinary work of the province must again be emphasised. It was pointed out in last year's report what the essentials were in dealing effectively with contagious disease and therefore until these are satisfied no reliable indication can be given of the influence of our preventive measures on the incidence of contagious disease within the province.

II—OTHER DISEASES.

22. During the year under report 15,490 villages were visited by Veterinary Assistants on tour. 214,491 animals were treated and 20,198 were castrated. Last year 10,293 villages were visited, 55,082 cases treated and 25,513 castrations were performed.

Treatment of diseases in villages—Table IV.

There was a reduction in the number of castrations carried out owing to the general debility of animals in

the districts necessitating postponement of the operation until they had regained condition.

III—Veterinary Hospitals.

23. There were 132 hospitals in the beginning of the year including three temporary dispensaries at Bheni-Milwan, Kotgarh and Gojra. During the year under report a new hospital was opened at Salarwala (district Lyallpur) and the dispensary at Gojra was converted into a permanent hospital. Dispensaries were also started at Kohala, Buchal-Kalan, Pindi Baha-ud-din, Bhalwal and Isa Khel. Thus at the end of the year there were 131 hospitals and 6 dispensaries in the province. The dispensary at Kotgarh, district Simla, was vacant at the close of the year.

A considerable demand has arisen for the opening of new hospitals, a large number of which can be effected through the aid of private subscriptions, clearly showing the growing popularity of these institutions and of departmental work throughout the province.

24. The total number of animals treated both in the hospitals and dispensaries of the province was 319,712 against 291,085 last year. 113,429 cases against 17,663 last year were supplied with medicines but not brought to hospitals. Besides this 12,397 castrations were performed in these institutions against 16,728 last year.

25. Out of wheat profits money Rs. 48,000 have been allotted for the construction of new buildings and improving the existing old buildings of veterinary hospitals. It is now hoped that the amount of the subsidy long overdue will shortly be placed at the disposal of the various District Boards, some of which have completed various improvements in anticipation of sanction and are now pressing for same.

PART III.—Breeding Operations.

26. At the close of the year under report there were 1,352 stud bulls at work in the Province against 1,270 in the previous year. (The difference of 5 bulls has been explained in the remarks column of Table VIII).

During the year under report there were 174 casualties and 256 additions. The detail of the latter is given below:—

| | | |
|-----|---|-----|
| (a) | Hissar bulls purchased from the Government Cattle Farm, Hissar, through this Department | 189 |
| (b) | Hissar bulls purchased direct from the Government Cattle Farm, Hissar, by the Shahpur District Board | 8 |
| (c) | Montgomery bull purchased direct from the Government Cattle Farm, Hissar, by the Mianwali District Board | 1 |
| (d) | Hissar bulls handed over to Sheikhpura District by the Gujranwala District Board | 44 |
| (e) | Dhanni bulls purchased by Jhelum and Rawalpindi Districts | 6 |
| (f) | Buffalo bulls purchased by Mianwali District | 3 |
| (g) | Montgomery bulls purchased locally by the Montgomery District | 4 |
| (h) | Baghnari bull purchased by the Dera Ghazi Khan District | 1 |
| | | 256 |

The cost of the Hissar bulls supplied by the Government Cattle Farm, Hissar, to District Boards has been increased to Rs. 250 with effect from 1st April 1920. Cattle-breeding continues to make satisfactory progress, the increase in the price of cattle has given a stimulus to more careful breeding in the districts. A comparison of the number of District Board bulls now being issued with the number which were formerly supplied shows clearly the growing demand for well bred bulls. Every endeavour is made by this Department by village lectures and by demonstrations at fairs to impress on zamindars the necessity for having good bulls and the emasculation of unsuitable ones. Special effort is made for castration work in those villages where District Board bulls are located. The Dhanni cattle-breeding scheme which was started in the Dhanni Tract over twelve months ago with the support of the Deputy Commissioner, Attock district, has so far given very encouraging

results. The system on which it is based, namely, of subsidising specially selected privately owned bulls has appealed to the ordinary zamindar who dreads the responsibility of keeping a bull the property of the District Board. The scheme, however, is particularly suited to the villages of this tract which form the original home of the famous Dhanni or Awankari breed. It is hoped that with proper supervision and further financial assistance to the scheme the permanence of this breed in the Dhanni Tract can be established which was a short time ago in danger of extinction.

II—EQUINES.

27. At the close of the year there were 65 horses and 77 donkeys at work in the non-selected districts of the province as compared with 67 horses and 74 donkeys in the previous year.

The following additions and casualties took place during the year under report :—

| | | | | Increase. | Horses | Donkeys. |
|---|--|--|--|-----------|--------|----------|
| Purchased by District Boards | | | | ... | 2 | 2* |
| Received from Civil Veterinary Department | | | | ... | 1 | 3 |
| | | | | Total | 3 | 5 |
| | | | | Decrease. | | |
| Died | | | | ... | 2 | 1 |
| Sold | | | | ... | 2 | 1 |
| Destroyed | | | | ... | 1 | ... |
| | | | | Total | 5 | 2 |

* These 2 donkeys were purchased by the Mianwall District over and above the sanctioned scale laid down in Appendix A to Agricultural Circular No. 6.

Although Government has done and is doing a great deal for the improvement of horse-breeding by supplying suitable stallions, progress is seriously handicapped in many directions. Owners should take special care of their mares when in foal and for a certain time after the foal is born. It is quite common now-a-days to see owners riding their mare long distances with a foal at foot which is too weak to travel,

thus handicapping its development. They forget the fact that the more work the mare has to do at this period, the milk supply will thereby be decreased for the foal. Very often mares let loose on so-called grazing areas are covered by inferior stallions the resulting progeny being put down to Government stallions.

28. The total number of horse, pony and donkey stallions employed at stud during the year was 4, 60 and 69. They covered 176, 2,971 and 3,692 mares, respectively. Last year 199, 2,979 and 3,680 mares were covered by 4, 61 and 71 horse, pony and donkey stallions, respectively. The average number of mares covered was 44, 49.51 and 53.5 per horse, pony and donkey stallion respectively, against 49.75, 48.83 and 51.83 in the previous year.

29. The average cost of feed, keep, etc., of horse, pony and donkey stallions was 608, 583 and 314, respectively, against 422, 466 and 263 during the previous year. These figures are as usual supplied by District Boards.

III.—SHEEP AND GOAT BREEDING.

30. During the year under report 110 three-quarter and half-bred merino rams were purchased by private persons of the following districts from the Government Cattle Farm, Hissar:—

| | | | | |
|----------------|-----|-----|-----|-----|
| Ferozepore ... | ... | ... | ... | 75 |
| Ambala ... | ... | ... | ... | 17 |
| Hissar ... | ... | ... | ... | 16 |
| Multan ... | ... | ... | ... | 2 |
| | | | | 110 |

In addition to the above 3 rams were purchased by the Jullundur District Board.

Reports from the various districts where cross-breeding with merino rams is carried out are encouraging. The best results can, however, only be expected in those flocks where the merino rams are being used systematically with due regard to the necessity of introducing fresh blood from time to time into their flocks.

IV.—FAIRS AND SHOWS.

31. The statistical information regarding Horse and Cattle Fairs and Shows is incorporated in Tables XIII and XIV. Horse fairs were held in 5 districts and cattle fairs in 20 districts.

The following statement shows the number of horse and cattle fairs and shows attended by the officers of the Department during the year under report :—

| Attending officer. | Horse fairs or shows. | Cattle fairs or shows. |
|--|--------------------------|---------------------------|
| Chief Superintendent, Civil Veterinary Department, Punjab | 3 | 3 |
| Officer on Special Duty | 3 | 3 |
| Officiating Chief Superintendent, Civil Veterinary Department, Punjab. | 2 | 2 |
| Superintendent, Civil Veterinary Department, North Punjab | 5 | 5 |
| Superintendent, Civil Veterinary Department, South Punjab | ... | 1 |
| Officiating Superintendent, Civil Veterinary Department, South Punjab. | ... | 5 |
| Deputy Superintendent, Civil Veterinary Department, South Punjab. | ... | 3 |

The remaining fairs and shows were either attended by the Veterinary Inspectors of this Department or abandoned on account of scarcity of fodder and prevalence of contagious diseases.

V.—MISCELLANEOUS.

32. The reports received regarding the working of the Cattle Insurance Societies in this province are so far encouraging.

There is a very large scope for the formation of such Societies which this Department are most anxious should develop when the staff is sufficiently strengthened for this purpose.

PART IV.—Establishment.

33. The establishment of subordinates at the end of the year under report was 192, as compared with 190 in the previous year. The two additional Veterinary Assistants were sanctioned for

the Sheikhpura District which was constituted during the year. The total number of subordinates working at the close of the year was :—

| | | | |
|-------------------------|-------|-----|---|
| Veterinary Inspectors | ... | ... | 18 |
| „ Assistants, 1st grade | ... | ... | 38 (includes 2 Veterinary Assistants officiating as Veterinary Inspectors). |
| „ „ 2nd „ | ... | ... | 75 |
| „ „ 3rd „ | ... | ... | 62 |
| | | | <hr/> |
| | Total | | 193 |
| | | | <hr/> |

During the year under report one Veterinary Inspector and 18 Veterinary Assistants were released from Military service. This left a balance of 17 Veterinary Assistants on Military duty at the close of the year.

PART V.—Expenditure.

34. The expenditure of the Department is given in Expenditure.—Table XIV. Table XIV-A. The figures are as usual supplied by the Accountant-General, Punjab, and are subject to modification if necessary when the accounts of the year are finally closed in August next.

PART VI.—General Remarks.

35. Both the clerical and subordinate staff have worked well throughout the year. The following Veterinary Inspectors deserve special mention for the interest shown in their work :—

| | | |
|----------------------|-----|-------------------|
| Veterinary Inspector | ... | Talib Khan. |
| Do. do. | ... | Mohamad Abdullah. |
| Do. do. | ... | Talib Hussain. |
| Do. do. | ... | Ghulam Hassan. |
| Do. do. | ... | Barkat Ali. |
| Do. do. | ... | Thakar Singh. |

As already stated the staff of the Department need to be increased to tackle the large amount of work especially in connection with contagious disease and thereby save the

heavy mortality which could be considerably reduced if there was sufficient staff to deal with it. Not alone is the Department suffering from a shortage of subordinate staff, but also the superior staff is considerably curtailed for the amount of work which has to be dealt with. If it is found necessary to have a Civil Surgeon for each district the position of the 3 Superintendents can be appreciated who have the whole Punjab and North-West Frontier Province to deal with.

The system of redistribution of charges amongst the Superintendents requires to be considered with a view to reducing the charge of the Superintendent, South Punjab, and also relieving the Chief Superintendent, who, in addition to the executive charge of the nine districts in the Central Punjab, deals with the administrative work of the entire province.

The Chief Superintendent's thanks are due to Mr. Garewal and Rai Sahib Lala Kotu Ram, Superintendents, and also to Pundit Janki Nath, officiating Deputy Superintendent, for their loyal support and also to all District Officers who have so kindly assisted this Department.

Annual Report for 1919-20.

1. I was incharge of the Farm throughout the year.
2. Captain R. Morris, Deputy Superintendent, retired from Farm and Government service on 31st March 1920. Captain Morris had 40 years service to his credit, and had served 39 years in India, 32 at Hissar, on this Farm. His long experience has been of the greatest value to a succession of Superintendents. He was always most hard-working and zealous, and will be much missed.
3. The Farm suffered severe loss in the unfortunate death of the Farm Bailiff Mr. C. E. B. Maccutchan who died from heat-stroke on June 17th. Mr. Maccutchan joined the Farm in 1902. He was a good worker, always considerate and tactful with the men under him, and will be much missed.
4. The total rainfall during 1919 was 11.85" as against 7.85" in 1918, and an annual average of 14". The

rainfall during July, August and September was 8·21", the remainder was winter rain, which is practically useless as far as grazing grasses are concerned. Rainfall was a little below average, but growth of *Bir* grasses was on the whole up to average.

5. Grazing was good from August to the end of the year, and 13,973 maunds and 30 seers of hay were saved as against 5,086 maunds 22 seers in the previous year.

6. Fodder in reserve at the close of the year amounted to 63,779 maunds 2 seers as against 85,109 maunds 29 seers on the 1st April 1919.

Fodder consumed again exceeded fodder saved.

This was due almost entirely to general stall feeding of stock, owing to absence of grazing from the 1st of April to August. A good year in which we can save more than we consume will soon be urgently necessary.

7. Demand for Farm stock continued good. Receipts amounted to Rs. 1,81,231, very little less than the record attained last year.

8. The year was again a very satisfactory one as regards contagious diseases.

The following occurred :—

(a) *Black-quarter*—As is usually the case in years of light rainfall caused more serious losses than any other contagious disease.

Sixteen deaths occurred as against 45 in 1918-19.

(b) *Equine contagious abortion*.—Three pony and 3 donkey mares aborted during the year, as against one pony and 4 donkey mares last year.

Losses from this serious malady tend to decrease, but if an efficient protective vaccine could be produced, it would probably be of great benefit to breeders throughout India.

(c) *Foot and mouth disease*.—The usual autumn and spring outbreaks occurred but were not particularly severe. Nineteen deaths occurred mostly in weak young stock cattle in the spring and in sheep.

The foot-path erected for male-stock at Chaoni was again successful in diminishing the feet deformities which commonly follow untreated cases of this disease.

- (d) *Hæmorrhagic Septicæmia*.—The Farm was again extremely fortunate in having no cases of this dangerous disease. Probably the dry year was mainly responsible, but our immunity may have been partly due to vaccination of the most susceptible young stock, which was carried out before the rains.
- (e) *Piroplasmosis*.—Two cases occurred among Arab mares from Ahmadnagar, one of which unfortunately died.
- (f) *Navei ill.*—Was kept in control by preventive measures.
- (g) *Rinderpest*.—Two deaths occurred during the year. Both among cultivation bullocks at Sully.

The outbreak was successfully limited to the bullocks among which it occurred, by careful measures of isolation. There were 7 deaths from this disease in 1918-19.

No cases of Surra or Strangles occurred.

9. Table XVI shows the changes in Farm stock during the year. The following details are of interest:—

Herd bulls.—Eleven were entered during the year : all have developed well.

Two were supplied to private breeders (one in the Punjab and the other in United Provinces).

Supernumerary bulls.—The following were issued:—

| | | | |
|---------------------------|-----|-----|-----|
| To Punjab District Boards | ... | ... | 197 |
| To Ceylon | ... | ... | 2 |
| To Native States | ... | ... | 31 |
| To private breeders | ... | ... | 2 |

Male produce.—This herd had a good year after the rains, but felt the fodder famine conditions very severely

from April to July, as there was not an atom of grazing in the area reserved for them till August. They suffered less than usual from contagious diseases. An area in their grazing ground suspected to be heavily infected with Black-quarter is being ploughed up and cultivated in the hope that opening up the soil and exposing to sun and air will destroy the source of infection.

The following were sold :—

| | | | | |
|--|-----|-----|-----|----|
| To Jamaica through Agricultural Adviser to Government of India | ... | ... | ... | 8 |
| To Java | ... | ... | ... | 74 |
| To District Board, Mianwali | ... | ... | ... | 1 |

Cows.—Only 563 calved during the year, as against 1,306 and 1,315 in the previous two years. Average number present in all three years has been approximately 1,500. This is evidence in support of the contention I have advanced before that the fecundity of the Hissar cow depends almost entirely on condition. 1916 and 1917 were years of abundant grazing, result a big crop of calves in 1917 and 1918. 1918 was a year of scarcity, result few calves in 1919. 1915 was a year with no grazing at all, result practically no calves in 1916. It is impossible by stall feeding to keep Farm cows in anything like the condition which results from good grazing.

The following cows were sold :—

| | | | | |
|-----------|-----|-----|-----|----|
| To Brazil | ... | ... | ... | 23 |
|-----------|-----|-----|-----|----|

Heifers.—175 were transferred to cows.

The following were sold :—

| | | | | |
|---------------------|-----|-----|-----|-----|
| To private breeders | ... | ... | ... | 200 |
| To Java | ... | ... | ... | 123 |
| To Ceylon | ... | ... | ... | 3 |

Bullocks.—The following were sold :—

| | | | | |
|------------------------|-----|-----|-----|----|
| To Military Department | ... | ... | ... | 80 |
|------------------------|-----|-----|-----|----|

In addition following were purchased locally for the other Departments :—

14 for the Agricultural Department.

4 for the Canal Department.

2 for the Punjab Veterinary College.

114 for the Military Department.

Mules—Were issued as follows :—

To Kashmir State Artillery 23

To Army Remount Department 5

Arab Breeding Scheme.—Six mares were received from the Army Remount Depôt at Ahmadnagar, one of which was heavy in foal at the time of arrival unfortunately contracted piroplasmosis and died. The other mares took a long time to acclimatize but are now doing well.

An Arab Stallion 'Dhaman' purchased through the kind assistance of the Director-General of Army Remount Department also arrived during the year. He is a magnificent specimen of an Arab but unfortunately up to date has not proved a good stock getter.

His measurements are :—

| <i>Height.</i> | <i>Girth.</i> | <i>Shank.</i> |
|----------------|---------------|---------------|
| 14.3 | 65" | 7½" |

Up to date the scheme has been pursued with bad luck but the young stock present are doing well and are promising.

Donkey Stock.—One new stallion was added, nam 'Habroo.' He is Farm Bred.

His measurements are :—

| <i>Height.</i> | <i>Girth.</i> | <i>Shank.</i> |
|----------------|---------------|---------------|
| 12.3¼ | 57" | 7" |

The following colts were issued :—

To Army Remount Department 13

To Punjab District Boards... .. 2

To North-West Frontier Province 1

To Kashmir Durbar 1

Eighteen two years old surplus fillies sold by auction at Amritsar realized an average of Rs. 124 each.

Sixty foals were born.

Donkey breeding met with a serious loss in the sudden death in February of the young stallion 'Hindustan,' the best donkey I have ever seen in India.

Mule-breeding mares.—57 foals were born equalling 46 per cent. No new mares were added during the year. Suitable mares are now difficult to obtain at the sanctioned average price.

Sheep.—Casualties in all flocks were heavy in the hot weather from parasitic castritis due to the *Hæmonchus contortus* worm.

Possibly the unusually trying hot weather had something to do with the number of casualties, as the lesions and loss of condition produced by the parasite were not very marked.

The flocks were all kept free from scab and cross bred wool sold to the Cawnpore Woollen Mills at their valuation realized up to Rs. 1-4-0 per lb.

Total realized for wool amounted to Rs. 3,692-2-0. A few of the coloured lambs sold locally and fattened, yielded mutton of the very highest quality. Equal or superior to the best English or Colonial mutton.

Ewes were again only allowed to lamb once in the year, and all in the spring.

I am convinced that an enormous number of casualties among lambs could be avoided in this province, if no ewes were allowed to lamb in the cold months.

108 male lambs and 55 female lambs were sold for breeding during the year, as against 110 male and 10 female lambs last year.

Sheep continue to pay well.

10. *Cultivation*.—During the year the following amounts of grain and fodder were received from the cultivation :—

| <i>Name of Crop.</i> | <i>Quantity.</i> | | | <i>Value.</i> | | |
|---|------------------|------------|------------|---------------|-----------|-----------|
| | <i>Mds.</i> | <i>SR.</i> | <i>CH.</i> | <i>Rs.</i> | <i>A.</i> | <i>P.</i> |
| Oats (<i>Avena sativa</i>) ... | 4,671 | 0 | 0 | 22,317 | 9 | 0 |
| Oats bhoosa (<i>Avena sativa</i>) ... | 9,342 | 0 | 0 | 9,342 | 0 | 0 |
| Oats in straw (<i>Avena sativa</i>) ... | 112 | 20 | 0 | 236 | 4 | 0 |
| Oats green (<i>Avena sativa</i>) ... | 3,241 | 11 | 0 | 1,620 | 10 | 3 |
| Jowar seed (<i>Sorghum vulgare</i>) | 41 | 9 | 0 | 386 | 11 | 9 |
| Jowar green (<i>Sorghum vulgare</i>) | 33,426 | 29 | 0 | 18,271 | 3 | 2 |
| Jowar kurby (<i>Sorghum vulgare</i>) ... | 19,134 | 17 | 0 | 19,297 | 11 | 2 |
| Ensilage jowar (<i>Sorghum vulgare</i>) ... | 9,855 | 9 | 0 | 6,570 | 2 | 5 |
| Guar (<i>Cyamopsis psoralioides</i>) ... | 199 | 36 | 0 | 953 | 14 | 11 |
| Guar green (<i>Cyamopsis psoralioides</i>) ... | 4,395 | 5 | 0 | 1,185 | 13 | 0 |
| Guar bhoosa (<i>Cyamopsis psoralioides</i>) ... | 128 | 0 | 0 | 170 | 10 | 8 |
| Green moth (<i>Phaseolus aconitifolius</i>) ... | 12 | 0 | 0 | 6 | 0 | 0 |
| Green chowla (<i>Vigna catganga</i>) | 50 | 0 | 0 | 25 | 0 | 0 |
| Green lucerne (<i>Medicago sativa</i>) | 4,181 | 12 | 0 | 2,787 | 8 | 5 |
| Green grass (<i>Cynodon dactylon</i>) | 6,037 | 20 | 0 | 2,634 | 12 | 8 |
| Hay (<i>Pennisetum cenchroides</i>) | 661 | 15 | 0 | 810 | 3 | 4 |

NOTE.—Maund = 82 lbs.

The following was received from the Bir :—

| <i>Name.</i> | <i>Weight.</i> | <i>Value.</i> |
|--|---------------------|----------------------|
| Hay (mostly from Anjan grass <i>Pennisetum cenchroides</i>) ... | 13,312 15 0 | 13,649 10 4 |
| Anjan grass seed (<i>Pennisetum cenchroides</i>) ... | 16 0 0 | 160 0 0 |
| Pala (leaf of wild Beri <i>Zizyplus Nummalera</i>) ... | 60 0 0 | 96 0 0 |
| Total ... | 108,877 38 0 | 1,00,521 14 1 |

108,877-38-0 Mds. as against 70,388-35-0 Mds. last year.

The usual difficulties were met with as regards the successful cultivation of jowar (*Sorghum vulgare*), enhanced in the year under report, by difficulty in obtaining seed. This was so acute that the rate of seed per acre was decreased.

This device however did not pay, the resulting crop was too thick in the stalk and consequently less palatable to stock, resulting in waste in feeding.

Insect pests (chiefly the jowar borer) caused the usual amount of trouble and loss.

The area sown with oats was 30 per cent. greater than in 1918. The crop did well and promises to yield rather over average.

The cultivation was handicapped by the unfortunate death of the Farm Bailiff in June as reported above.

A new Farm Bailiff, Mr. W. S. Read, late of the 1/25th London Territorial Regiment was appointed in November 1919. Mr. Read has had some experience of Indian conditions in the Military Farms Department and promises to do well. From June 17th to November 18th the 2nd Farm Overseer, M. Ata Mohammad, officiated as Farm Bailiff with great credit.

11. *Veterinary Hospital*.—The average number of cases treated daily was 50 as against 52 in the previous year.

Number of mules castrated was ... 31

Number of cattle castrated was ... 60

727 animals were inoculated against Black-quarter.

178 " " " Hemorrhagic Septicæmia.

35 " " " Rinderpest.

The new hospital was taken over at the end of the year, and is a great improvement on the previous makeshift building.

12. The price of gram and of all concentrated foods remained at unprecedently high rates throughout the year.

Guar (*Cyamopsis psoralioides*) was the cheapest grain suitable for cattle obtainable, and something was saved by its substitution for gram. Guar is popularly supposed to be only suitable for cattle stock and only suitable for them in the cold weather.

In the year under report it was fed to cattle throughout the year, and was also fed at times to mares, mules and donkeys.

I hope if adequate supervision can be arranged to carry out this year some comparative feeding experiments comparing gram and guar.

13. As usual the work of the Farm staff has been very satisfactory. The office staff has been supplemented by the appointment of an additional clerk, sanctioned during the year, and the second clerk returned from Military duty.

The Bir Darogha did well, considering the light rain at hay making.

14. The concluding pages of this report present an innovation in the shape of photographs of Farm stock and activities:—

Photo No. 1 is of herd bull No. 432 $4\frac{1}{5}$ 4 years old at the time the photograph was taken. Height behind hump 56 inches, girth 60 inches. He will grow to about 58 inches high and 80 inches girth.

No. 2 is of three cows. Fairly typical of the types now bred on the Farm. The short horned cow in the middle is the most popular type.

No. 3 is a typical Farm bred bullock. Height 60 inches (15 H. H.) behind the hump.

No. 4 is of 3 typical Farm bred mules issued recently to the Army Remount Department for Mountain Batteries. Height about 14.1 inches, girth 64 inches.

No. 5 is of the donkey stallion Habroo bred on the Farm. By Hissar out of mare No. 22 foaled on 12th March 1916. His measurements are:—

| <i>Height</i> | <i>Girth</i> | <i>Shank.</i> |
|--------------------------|--------------|---------------|
| 12.3 $\frac{1}{4}$ H. H. | 57" | 7" |

No. 6 is a group of cross-bred merino Hissar male lambs, bred on the Farm.

No. 7 is the Arab stallion "Dhaman" purchased for the Farm : measurements :—

| <i>Height.</i> | <i>Girth.</i> | <i>Shank.</i> |
|----------------|---------------|---------------|
| 14·3 H. H. | 65" | 7¼" |

No. 8 is the C. B. Arab filly No. 5 bred on the Farm by "Gunboat" out of mare No. 1. Born on February 23rd, 1918 : measurements at 2 years old were :—

| <i>Height</i> | <i>Girth</i> | <i>Shank</i> |
|---------------|--------------|--------------|
| 13·2 H. H. | 56" | 6½" |

No. 9 shows the Farm oat thrashing and straw bruising machine at work.

No. 10 shows labourers hand cutting a heavy crop of oats.

No. 11 shows a team of bullocks ploughing with a Ransomes E. D. B. plough.

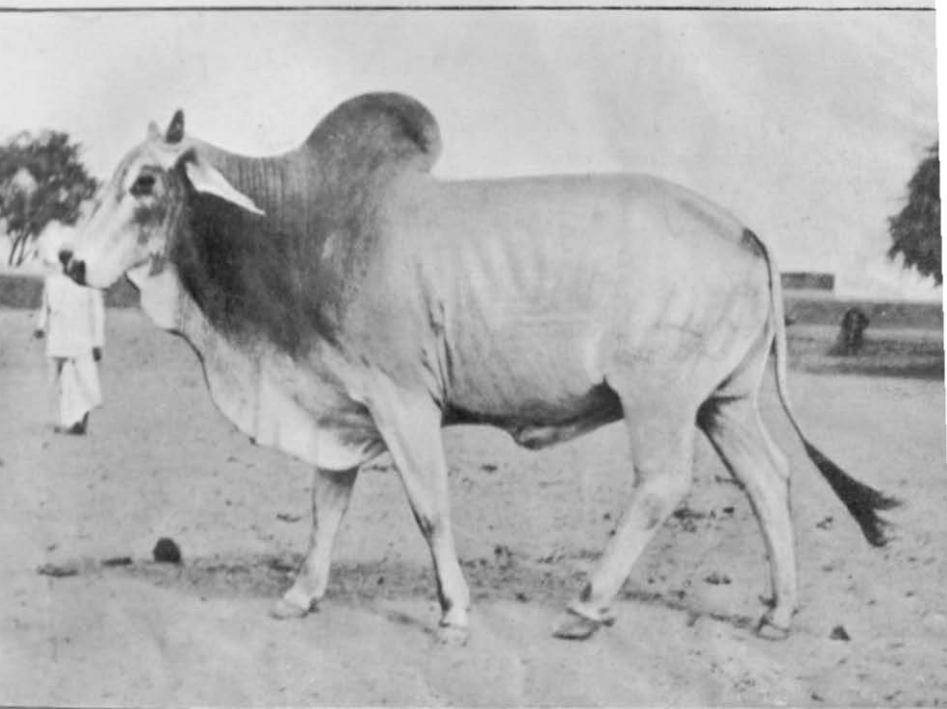
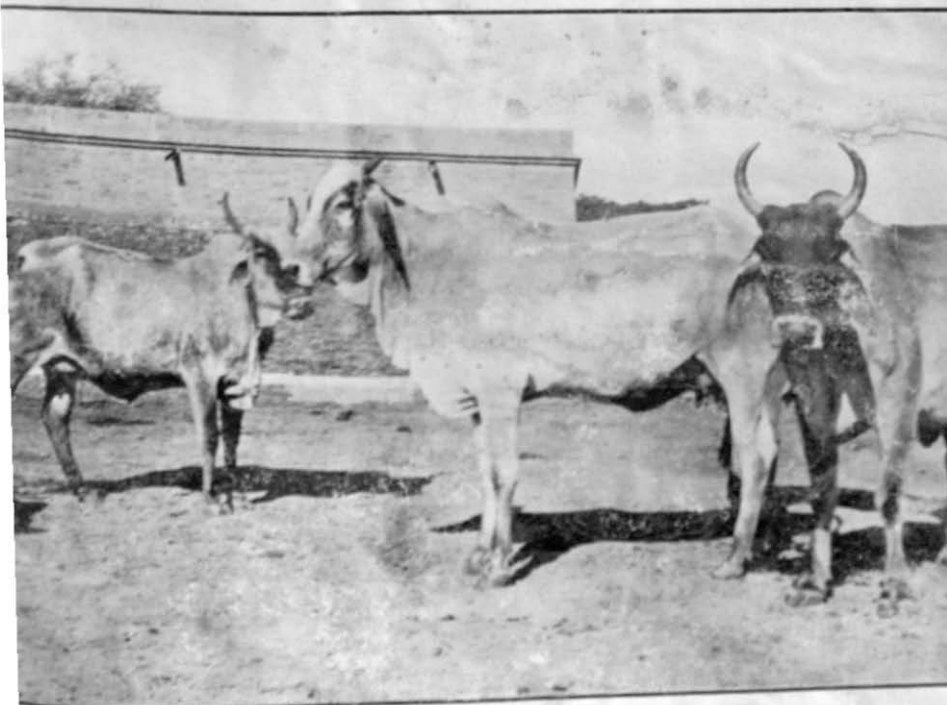
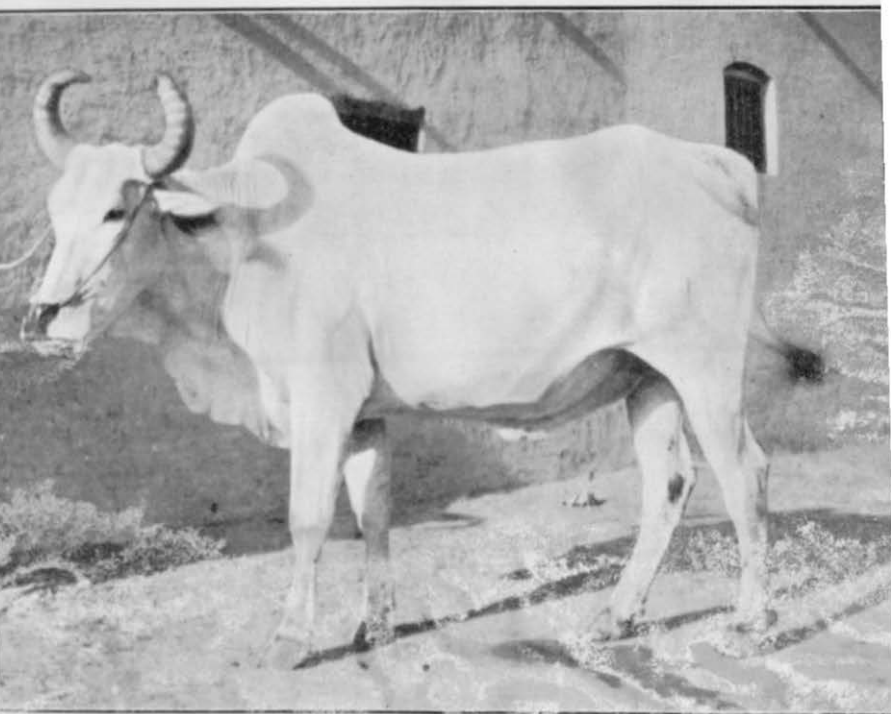


Photo. No. 1. Herd bull No. 4324/5 4 years old.







No. 3. Typical Farm bred bullock. Height 60 inches (to H. H.) behind the hump.

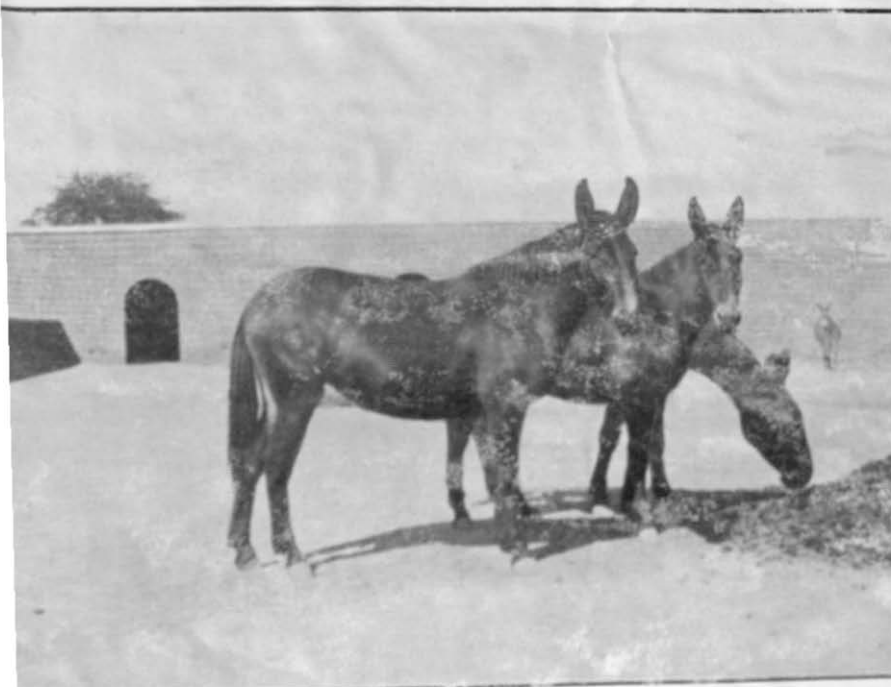


Photo No. 4. Three typical Farm bred mules.

1861

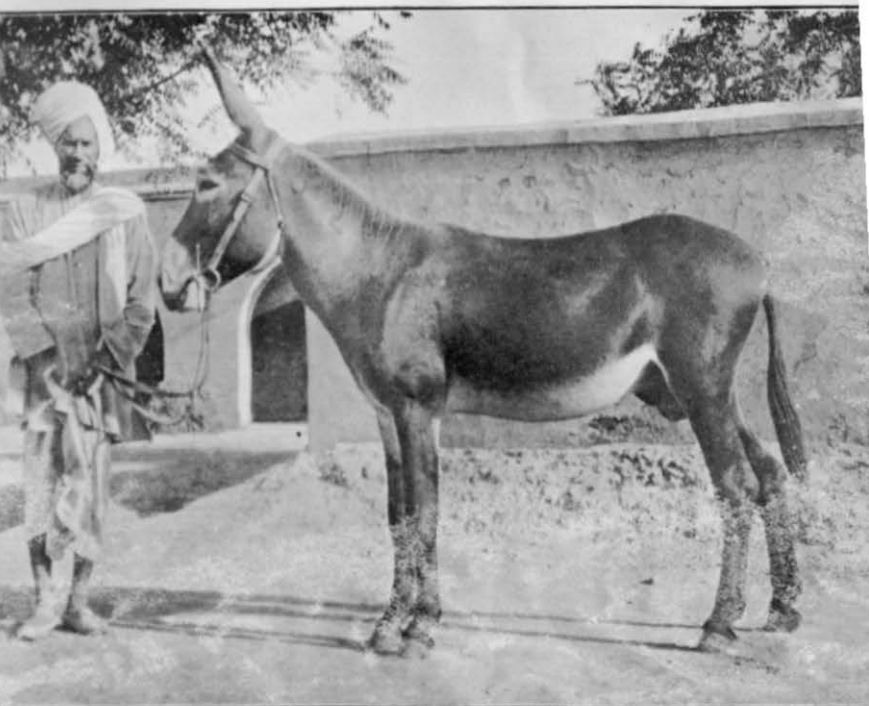
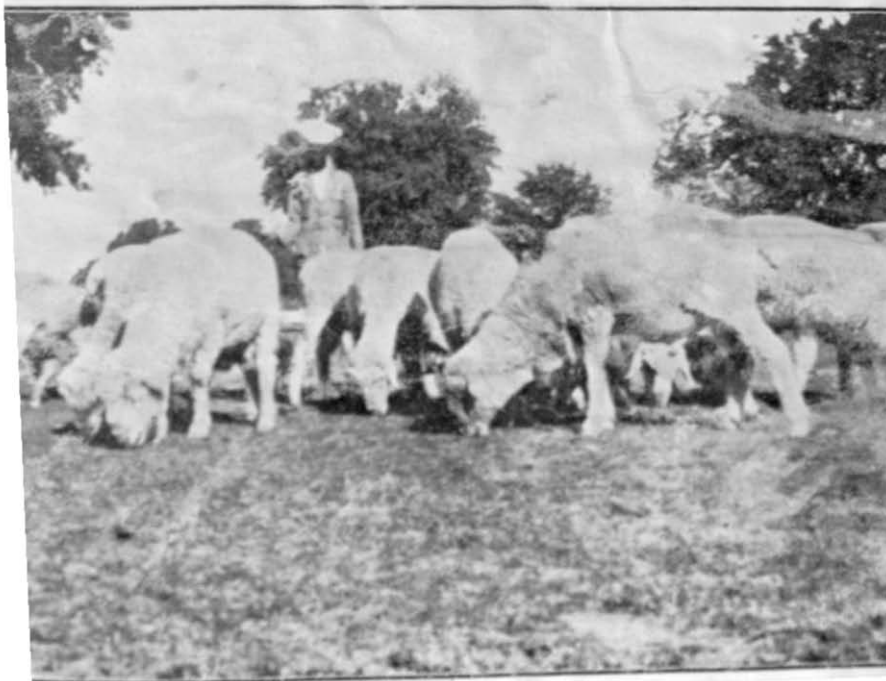


Photo. No. 5. Donkey stallion "Habroo" bred on the *Farmer*.



unintelligible text



Photo. No. 7. - Arab stallion "Dhaman" purchased for the Fagan.



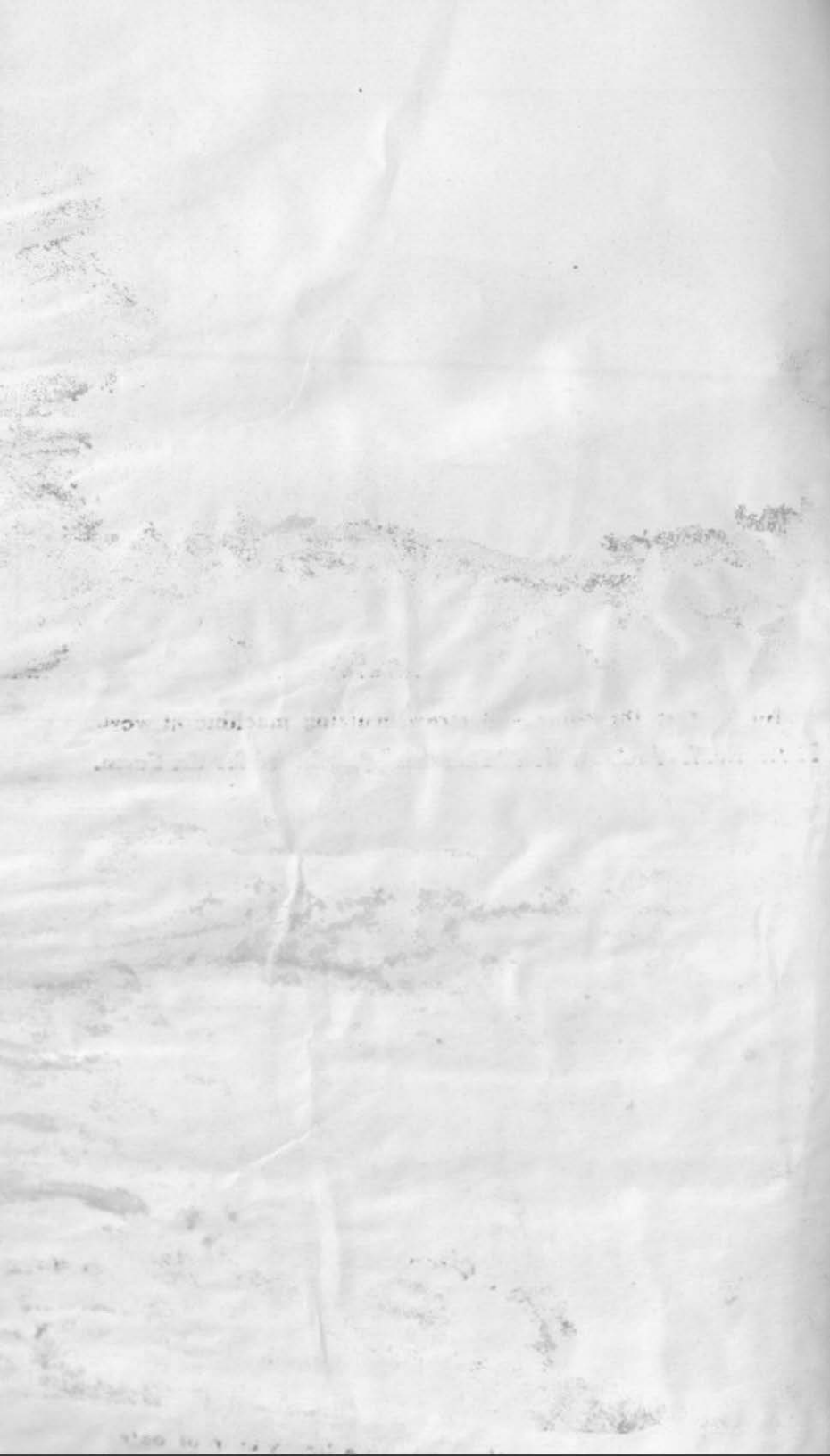




Photo. No. 9. Oat thrashing and straw bruising machine at work.

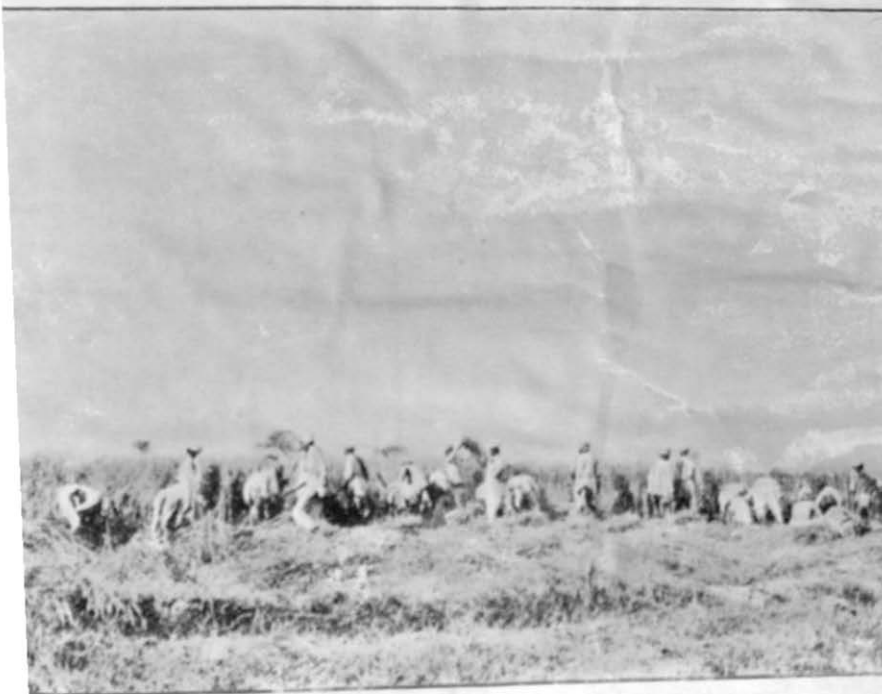
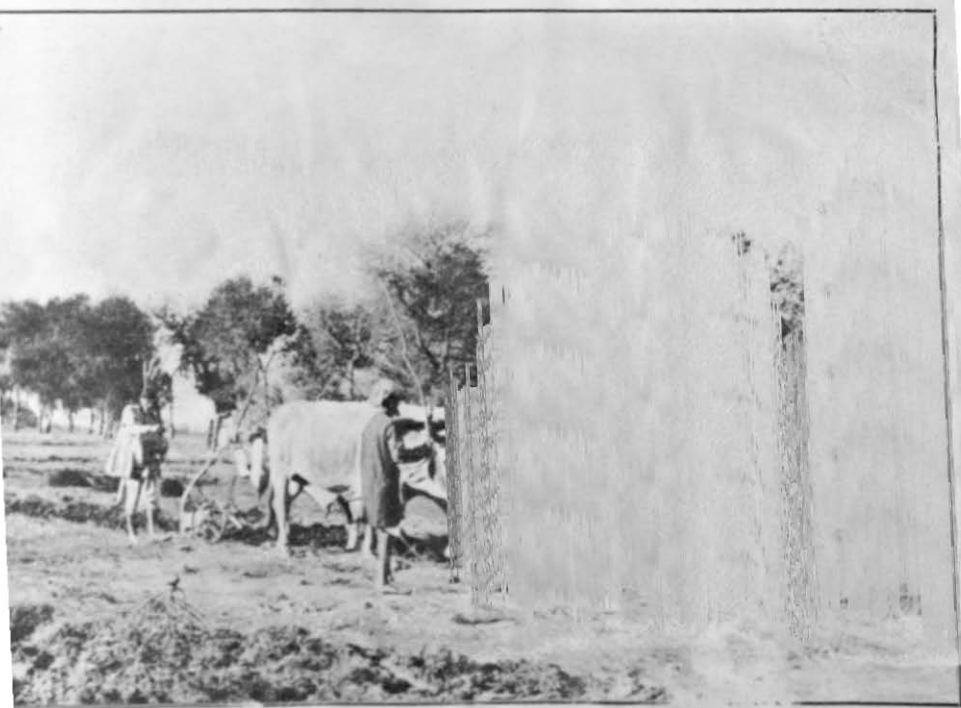


Photo. No. 10. Labourers cutting by hand a heavy crop of oats.



No. 11. A team of bullocks ploughing with a Ransomes E. D. E. plough.



TABLES.

| No. | Subject. | Pages. |
|---------|---|------------|
| I | Statement showing the main results of the Punjab Veterinary College | i |
| II | Statement showing the number of deaths from contagious diseases amongst animals ... | ii-iii |
| III | Statement showing results of preventive inoculation | iv-vii |
| IV | Statement showing the number of animals treated and castrated by Veterinary Assistants on tour ... | viii-ix |
| V | Statement showing the number of animals treated and castrated at Veterinary Hospitals and Dispensaries | x-xi |
| VII | Statement showing the total strength of Subordinate Veterinary staff employed | xii |
| VIII | Return of stud bulls | xiii |
| X | Return of Horse, Pony and Donkey Stallions under local bodies... .. | xiv |
| XI | Services and produce of each class of horse, pony and donkey stallions under local bodies ... | xv |
| XII | Statement showing average cost of feed, keep, attendance, etc., of horse, pony and donkey stallions | ib. |
| XIII | Abstract of particulars regarding horse fairs and shows held in non-selected districts... .. | xvi-xvii |
| XIV | Abstract of particulars regarding cattle fairs and shows | xviii-xix |
| XIV (A) | Statement showing cost of Civil Veterinary Department | xx |
| XV | Expenditure by local bodies | xxii-xxiii |
| XVI | Return of animals on the Hissar Cattle Farm ... | xxiv-xxv |
| XVI (A) | Return of sheep on the Hissar Cattle Farm ... | xxvi |
| XVII | Results of donkey and mule-breeding on the Hissar Farm | xxvii |
| XVIII | Abstract showing main results of the working of the Hissar Farm | xxviii |

TABLAS

| Folio | Rubrica |
|-------|--|
| I | De la leyenda de la vida de San Juan el Evangelista |
| II | De la leyenda de la vida de San Pedro el Apóstol |
| III | De la leyenda de la vida de San Pablo el Apóstol |
| IV | De la leyenda de la vida de San Andrés el Apóstol |
| V | De la leyenda de la vida de San Mateo el Apóstol |
| VI | De la leyenda de la vida de San Marcos el Apóstol |
| VII | De la leyenda de la vida de San Juan el Bautista |
| VIII | De la leyenda de la vida de San Esteban el Protomártir |
| IX | De la leyenda de la vida de San Agustín el Doctor |
| X | De la leyenda de la vida de San Jerónimo el Doctor |
| XI | De la leyenda de la vida de San Basilio el Grande |
| XII | De la leyenda de la vida de San Gregorio el Grande |
| XIII | De la leyenda de la vida de San Ambrosio el Doctor |
| XIV | De la leyenda de la vida de San Crisóstomo el Doctor |
| XV | De la leyenda de la vida de San Hilario el Doctor |
| XVI | De la leyenda de la vida de San Isidoro el Doctor |

TABLE I.

STATEMENT SHOWING THE MAIN RESULTS OF THE PUNJAB VETERINARY COLLEGE, LAHORE, FOR THE YEAR 1919-20.

| Name of the institution. | Name of course of instruction if more than one followed. | NUMBER OF STUDENTS | | | | | | STUDENTS ADMITTED DURING THE YEAR CLASSED BY EDUCATIONAL QUALIFICATION. | | | RECEIPTS FROM | | | EXPENDITURE ON | | | EMPLOYMENT OF GRADUATES WHO PASSED OUT DURING 3 YEARS PRECEDING. | | | | | |
|----------------------------|--|---------------------------------------|------------------------------|---|---------------------------------------|---|---|---|--|--|---------------|----------------|--------|--------------------------------|-----------------|----------|--|---|--|----------------------|--------------------|----------|
| | | Admitted during the year April 1919.) | | Passed final examination during the year ending April 1920. | Failed to pass the final examination. | Remaining under instruction at the end of the year. | | Matriculated or with higher qualifications. | Knowing some English but no. Matriculated. | Knowing no English or very little English. | Fees. | Other sources. | Total. | Salaries of Instructing Staff. | Other expenses. | Total. | Number passed | In service of Government or local bodies. | In service of other bodies or institution. | In private practice. | Number unemployed. | REMARKS. |
| | | Scholarship holders. | Military and other students. | | | In ordinary course. | Instruction prolonged by reason of failure. | | | | | | | | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| Punjab Veterinary College. | 3 years' course | 12 | 44 | 60 | 6 | 125 | 35 | 1 | 33 | 47 | 14,351 | 6,262 | 2,613 | 67,956 | 66,927 | 1,34,883 | 157 | 130 | 18 | ... | ... | |
| Ditto | *4 years' course | 5 | 20 | 21 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| Ditto | Post Graduate course. | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |

* Course in abeyance since October 1919. Students absorbed in 3 years' course.

† Hostel income and expenditure are included in these figures.

TABLE

SHOWING NUMBER OF DEATHS FROM CONTAGIOUS

| DISTRICT. | EQUINES. | | | | | | BOV | | |
|---------------------------------|-----------|----------|--------|----------|----------------------------|--------|-------------|-------------------------|-------------------------|
| | Glanders. | Anthrax. | Surra. | Dourine. | Other contagious diseases. | Total. | Rinderpest. | Foot and Mouth disease. | Hæmorrhagic septicæmia. |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Hissar | ... | ... | ... | ... | ... | ... | 490 | 16 | 205 |
| Rohtak | ... | ... | ... | ... | ... | ... | 814 | 11 | 39 |
| Gurgaon | ... | ... | ... | ... | ... | ... | 549 | 36 | 165 |
| Karnal | ... | ... | 2 | ... | ... | 2 | 1,618 | 187 | 156 |
| Ambala | ... | ... | ... | ... | ... | ... | 696 | 16 | 36 |
| Simla | ... | ... | ... | ... | ... | ... | 18 | 19 | ... |
| Kangra | ... | ... | ... | ... | ... | ... | 6,877 | 416 | 50 |
| Hoshiarpur | ... | ... | 1 | ... | ... | 1 | 2,168 | 128 | 369 |
| Jullundur | ... | ... | ... | ... | ... | ... | 1,980 | 271 | 366 |
| Ludhiana | ... | ... | ... | ... | ... | ... | 975 | 33 | 139 |
| Ferozepore | ... | ... | 16 | ... | 1 | 17 | 705 | 110 | 144 |
| Lahore | ... | ... | 1 | ... | ... | 1 | 1,473 | 161 | 864 |
| Amritsar | ... | ... | 3 | ... | ... | 3 | 455 | 51 | 592 |
| Gurdaspur | 15 | ... | 3 | ... | ... | 18 | 1,958 | 121 | 203 |
| Sialkot | ... | ... | ... | ... | ... | ... | 1,628 | 184 | 151 |
| Gujranwala | ... | ... | 2 | ... | ... | 2 | 863 | 19 | 301 |
| Sheikhupura | ... | ... | ... | ... | ... | ... | 211 | 3 | 682 |
| Gujrat | ... | ... | 11 | ... | ... | 11 | 1,473 | 24 | 400 |
| Shabpur | ... | ... | 12 | ... | ... | 12 | 8,228 | 95 | 1,016 |
| Jhelum | ... | ... | ... | ... | ... | ... | 562 | 131 | 145 |
| Attock | 3 | ... | ... | ... | ... | 3 | 222 | 95 | 45 |
| Mianwali | ... | ... | ... | ... | ... | ... | 1,488 | 164 | 13 |
| Montgomery | ... | ... | ... | ... | ... | ... | 585 | 156 | 60 |
| Lyallpur | ... | ... | 1 | ... | ... | 1 | 179 | ... | 8 |
| Jhang | ... | ... | ... | ... | ... | ... | 1,406 | 10 | 9 |
| Multan | ... | ... | ... | ... | ... | ... | 1,961 | 7 | 45 |
| Muzaffargarh | ... | ... | 1 | ... | ... | 1 | 853 | 93 | 55 |
| Dera Ghazi Khan | ... | ... | 11 | ... | 3 | 4 | 1,616 | 9 | 55 |
| | ... | ... | ... | ... | ... | 11 | 104 | 15 | 5 |
| Total | 18 | ... | 65 | ... | 4 | 87 | 42,155 | 2,592 | 6,319 |
| Government Cattle Farm, Hissar. | ... | ... | ... | ... | 1 | 1 | 2 | 19 | ... |

II

DISEASES AMONGST ANIMALS DURING THE YEAR 1919-20.

| IVES. | | | | OTHERS. | | | | | | REMARKS. |
|----------------|----------|----------------------------|--------|-------------|-----------------|--------------------------|----------|-------------------|--------|----------|
| Black quarter. | Anthrax. | Other contagious diseases. | Total. | Rinderpest. | Foot and Mouth. | Hæmorrhagic septi-cæmia. | Unknown. | Other contagious. | Total. | |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 21 | ... | ... | 732 | ... | ... | ... | ... | ... | ... | ... |
| 1 | ... | ... | 865 | ... | ... | ... | ... | ... | ... | ... |
| 47 | ... | ... | 797 | ... | 50 | 4 | ... | ... | ... | 54 |
| ... | ... | ... | 1,961 | 40 | ... | ... | ... | 40 | ... | 80 |
| ... | ... | ... | 748 | 7 | ... | ... | ... | ... | ... | 7 |
| ... | ... | ... | 37 | ... | ... | ... | ... | ... | ... | ... |
| ... | ... | ... | 7,343 | 258 | 29 | 6 | ... | 18 | ... | 311 |
| ... | ... | ... | 2,665 | 12 | ... | ... | ... | ... | ... | 12 |
| ... | ... | 5 | 2,622 | 5 | 2 | 5 | ... | ... | ... | 12 |
| ... | ... | ... | 1,147 | ... | 1 | ... | ... | ... | ... | 1 |
| 8 | ... | ... | 967 | 49 | 15 | 2 | ... | ... | ... | 66 |
| ... | ... | ... | 2,498 | 18 | ... | ... | ... | ... | ... | 18 |
| ... | ... | ... | 1,098 | 2 | ... | 1 | ... | ... | ... | 3 |
| ... | ... | 1 | 2,283 | 10 | ... | ... | ... | ... | 55 | 65 |
| ... | ... | 15 | 1,978 | 3 | 7 | ... | 9 | 12 | ... | 31 |
| ... | ... | ... | 1,193 | ... | ... | ... | ... | 6 | ... | 6 |
| ... | ... | ... | 896 | ... | ... | ... | ... | 204 | ... | 204 |
| 7 | ... | ... | 1,904 | 400 | ... | ... | ... | ... | ... | 400 |
| 8 | ... | 21 | 9,369 | 404 | ... | ... | ... | ... | ... | 400 |
| 96 | ... | 55 | 1,019 | 271 | 90 | 17 | ... | 623 | 1,044 | 697 |
| 4 | ... | 29 | 396 | ... | 1 | ... | ... | 336 | ... | 1 |
| 32 | ... | 93 | 1,790 | 65 | ... | ... | ... | ... | ... | 1,021 |
| ... | ... | 265 | 1,066 | 25 | ... | ... | ... | 17 | ... | 42 |
| ... | ... | ... | 187 | 20 | ... | ... | ... | ... | ... | 20 |
| ... | ... | ... | 1,425 | ... | ... | ... | ... | ... | ... | ... |
| 2 | ... | ... | 2,015 | 76 | ... | ... | ... | ... | ... | 76 |
| ... | ... | ... | 1,001 | 7 | ... | ... | ... | ... | ... | 7 |
| 16 | ... | 2 | 1,698 | ... | ... | ... | ... | ... | ... | ... |
| ... | ... | ... | 124 | ... | ... | ... | ... | ... | ... | ... |
| 242 | ... | 516 | 51,824 | 1,672 | 195 | 35 | 9 | 2,267 | 4,178 | |
| 16 | ... | ... | 37 | ... | 2 | ... | ... | ... | 2 | |

TABLE III
SHOWING RESULTS OF PREVENTIVE INOCULATION DURING THE YEAR 1919-20.

| DISTRICT. | Name of disease against which inoculation was carried out. | Method of inoculation followed. | Number of outbreaks in which inoculation was under taken. | NUMBER OF ANIMALS WHICH DIED UNINOCULATED IN COURSE OF OUTBREAK. | | | NUMBER OF ANIMALS INOCULATED. | | | NUMBER OF ANIMALS WHICH DIED AFTER INOCULATION. | | | REMARKS. | |
|--------------|--|---------------------------------|---|--|----------|---------|-------------------------------|----------|---------|---|----------|---------|----------|-----|
| | | | | Equines. | Bovines. | Others. | Equines. | Bovines. | Others. | Equines. | Bovines. | Others. | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | |
| Hissar | Rinderpest. | Serum alone. | 18 | ... | 236 | ... | ... | 3,483 | ... | ... | ... | ... | ... | |
| Rohtak | | | 6 | ... | 120 | ... | ... | 1,058 | ... | ... | ... | ... | ... | ... |
| Gurgaon | | | 22 | ... | 199 | ... | ... | 5,872 | ... | ... | ... | ... | ... | ... |
| Karnal | | | 14 | ... | 125 | ... | ... | 2,280 | ... | ... | ... | 1 | ... | ... |
| Ambala | | | 33 | ... | 865 | ... | ... | 4,601 | ... | ... | ... | ... | 11 | ... |
| Simla | | | 18 | ... | 91 | ... | ... | 516 | ... | ... | ... | ... | 2 | ... |
| Ludhiana | | | 17 | ... | 211 | ... | ... | 2,055 | ... | ... | ... | ... | ... | ... |
| Ferozepore | | | 26 | ... | 318 | ... | ... | 4,776 | ... | ... | ... | ... | ... | ... |
| Lyalpur | | | 25 | ... | 590 | ... | ... | 3,144 | ... | ... | ... | ... | 15 | ... |
| Multan | | | 13 | ... | 225 | ... | ... | 4,008 | ... | ... | ... | ... | 5 | ... |
| Muzaffargarh | | | 15 | ... | 149 | ... | ... | 6,400 | ... | ... | ... | ... | 6 | ... |
| Montgomery | | | 4 | ... | 48 | ... | ... | 1,147 | ... | ... | ... | ... | ... | ... |
| Jhang | | | 10 | ... | 185 | ... | ... | 2,237 | ... | ... | ... | ... | ... | ... |
| Rawalpindi | | | 20 | ... | 70 | ... | ... | 1,484 | ... | ... | ... | ... | 1 | ... |
| Attock | | | 46 | ... | 1,372 | ... | ... | 9,724 | ... | ... | ... | ... | 18 | ... |
| Jhelum | | | 4 | ... | 80 | ... | ... | 1,588 | ... | ... | ... | ... | 3 | ... |
| Gujrat | | | 8 | ... | 96 | ... | ... | 1,071 | ... | ... | ... | ... | 1 | ... |

| | | | | | | | | | | | | |
|-----------------|-----|-----|-----|-----|--------|-----|-----|---------|-----|-----|-----|-----|
| Mianwall | ... | ... | 11 | ... | 125 | ... | ... | 3,967 | ... | ... | ... | ... |
| Shahpur | ... | ... | 29 | ... | 411 | ... | ... | 6,479 | ... | ... | 4 | ... |
| Kangra | ... | ... | 255 | ... | 2,036 | ... | ... | 10,141 | ... | ... | 19 | ... |
| Gurdaspur | ... | ... | 44 | ... | 871 | ... | ... | 6,552 | ... | ... | 14 | ... |
| Jullundur | ... | ... | 79 | ... | 1,198 | ... | ... | 10,614 | ... | ... | 4 | ... |
| Hoshiarpur | ... | ... | 46 | ... | 440 | ... | ... | 6,170 | ... | ... | 10 | ... |
| Lahore | ... | ... | 26 | ... | 412 | ... | ... | 4,654 | ... | ... | 6 | ... |
| Amritsar | ... | ... | 5 | ... | 33 | ... | ... | 701 | ... | ... | 1 | ... |
| Amritsar | ... | ... | 5 | ... | 44 | ... | ... | 782 | ... | ... | 7 | ... |
| Gujranwala | ... | ... | 17 | ... | 322 | ... | ... | 1,349 | ... | ... | ... | ... |
| Sialkot | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Total | ... | ... | 816 | ... | 10,872 | ... | ... | 106,626 | ... | ... | 128 | ... |
| Hissar | ... | ... | *16 | ... | ... | ... | ... | 2,017 | ... | ... | ... | ... |
| Rohtak | ... | ... | 2 | ... | ... | ... | ... | 488 | ... | ... | ... | ... |
| Gurgaon | ... | ... | 3 | ... | ... | ... | ... | 580 | ... | ... | ... | ... |
| Karnal | ... | ... | 17 | ... | ... | ... | ... | 3,273 | ... | ... | ... | ... |
| Ambala | ... | ... | 1 | ... | ... | ... | ... | 153 | ... | ... | ... | ... |
| Ferozepore | ... | ... | 15 | ... | ... | ... | ... | 2,422 | ... | ... | ... | ... |
| Montgomery | ... | ... | 2 | ... | ... | ... | ... | 355 | ... | ... | ... | ... |
| Lyalpur | ... | ... | 1 | ... | ... | ... | ... | 449 | ... | ... | ... | ... |
| Multan | ... | ... | 82 | ... | ... | ... | ... | 26,545 | ... | ... | ... | ... |
| Muzaffargarh | ... | ... | 3 | ... | ... | ... | ... | 2,160 | ... | ... | ... | ... |
| Ludhiana | ... | ... | 2 | ... | ... | ... | ... | 840 | ... | ... | ... | ... |
| Jhang | ... | ... | 1 | ... | ... | ... | ... | 610 | ... | ... | ... | ... |
| Dera Ghazi Khan | ... | ... | 2 | ... | ... | ... | ... | 1,234 | ... | ... | ... | ... |
| Mianwall | ... | ... | 10 | ... | ... | ... | ... | 3,788 | ... | ... | ... | ... |
| Jullundur | ... | ... | 7 | ... | ... | ... | ... | 1,146 | ... | ... | ... | ... |
| Lahore | ... | ... | 18 | ... | ... | ... | ... | 4,322 | ... | ... | ... | ... |
| Amritsar | ... | ... | 28 | ... | ... | ... | ... | 5,499 | ... | ... | ... | ... |
| Gujranwala | ... | ... | 3 | ... | ... | ... | ... | 1,455 | ... | ... | ... | ... |
| Total | ... | ... | 213 | ... | ... | ... | ... | 57,335 | ... | ... | ... | ... |

*Villages.

| | | | | | | | | | | | |
|--------------------|-------------------------|--------------|-----|-----|-----|-----|--------|-----|-----|-----|-----|
| Labore | ... | ... | ... | 16 | ... | ... | 877 | ... | ... | ... | ... |
| Amritsar | ... | ... | ... | 32 | ... | ... | 762 | ... | ... | 4 | ... |
| Gujranwala | ... | ... | ... | 37 | ... | ... | 938 | ... | ... | ... | ... |
| Stalkot | ... | ... | ... | 1 | ... | ... | 88 | ... | ... | ... | ... |
| Total | ... | ... | ... | 73 | ... | ... | 18,741 | ... | ... | 8 | ... |
| Hissar | Black Quarter. | Vaccination. | ... | *10 | ... | ... | 1,328 | ... | ... | ... | ... |
| Gurgaon | | | ... | 3 | ... | ... | 297 | ... | ... | ... | ... |
| Ludhiana | | | ... | 4 | ... | ... | 490 | ... | ... | ... | ... |
| Lyallpur | | | ... | 1 | ... | ... | 110 | ... | ... | 8 | ... |
| Attock | | | ... | 5 | ... | ... | 604 | ... | ... | 2 | ... |
| Jhelum | ... | ... | ... | 7 | ... | ... | 173 | ... | ... | ... | |
| Total | ... | ... | ... | 30 | ... | ... | 2,912 | ... | ... | 10 | ... |
| Hissar Cattle Farm | Black Quarter. | Vaccination. | ... | ... | 4 | ... | 727 | ... | ... | 8 | ... |
| | Rinderpest. | Serum | 1 | ... | 2 | ... | 35 | ... | ... | ... | ... |
| | Hæmorrhagic septicæmia. | Vaccination. | ... | ... | ... | ... | 178 | ... | ... | ... | ... |

*Villages.

SHOWING THE NUMBER OF ANIMALS TREATED AND CASTRATED

| DISTRICT. | Number of villages visited. | Number of Veterinary Assistants employed. | CASTRATIONS PERFORMED. | | | |
|---------------------|-----------------------------|---|------------------------|----------|---------|--------|
| | | | Equines. | Bovines. | Others. | Total. |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Hissar ... | 683 | 6 | 20 | 901 | 542 | 1,463 |
| Rohtak ... | 316 | 6 | 19 | 781 | 50 | 850 |
| Gurgaon ... | 845 | 7 | 18 | 1,886 | 58 | 1,962 |
| Karnal ... | 951 | 5 | 17 | 871 | 16 | 904 |
| Ambala ... | 599 | 6 | 19 | 402 | 6 | 427 |
| Simla ... | 177 | 2 | 1 | 28 | 8 | 37 |
| Kangra ... | 1,442 | 7 | 48 | 8 | 16 | 72 |
| Hoshiarpur ... | 764 | 5 | 4 | 241 | 10 | 255 |
| Jullundur ... | 849 | 6 | ... | 256 | 12 | 268 |
| Ludhiana ... | 280 | 5 | 6 | 361 | 6 | 373 |
| Ferozepore ... | 661 | 7 | 48 | 973 | 232 | 1,273 |
| Lahore ... | 668 | 5 | 37 | 621 | ... | 668 |
| Amritsar ... | 446 | 6 | 3 | 212 | ... | 215 |
| Gurdaspur ... | 491 | 7 | 3 | 88 | 17 | 108 |
| Sialkot ... | 510 | 6 | 2 | 23 | ... | 25 |
| Gujranwala ... | 344 | 4 | 22 | 239 | 8 | 289 |
| Sheikhupura ... | 102 | 2 | ... | 119 | 3 | 122 |
| Gujrat ... | 430 | 5 | 21 | 663 | ... | 684 |
| Shahpur ... | 810 | 5 | 38 | 3,155 | 14 | 3,207 |
| Jhelum ... | 664 | 4 | 16 | 342 | ... | 358 |
| Rawalpindi ... | 600 | 5 | 19 | 541 | ... | 560 |
| Attock ... | 521 | 5 | 10 | 140 | 1 | 151 |
| Mianwali ... | 299 | 4 | 28 | 770 | 22 | 820 |
| Montgomery ... | 251 | 6 | 80 | 650 | ... | 730 |
| Lyallpur ... | 464 | 7 | 13 | 425 | 27 | 465 |
| Jhang ... | 367 | 5 | 1 | 240 | ... | 241 |
| Multan ... | 362 | 5 | 7 | 516 | 1 | 524 |
| Muzaffargarh ... | 481 | 7 | 4 | 2,101 | 30 | 2,135 |
| Dera Ghazi Khan ... | 173 | 4 | 34 | 896 | 92 | 1,022 |
| Total ... | 15,490 | 154 | 538 | 18,469 | 1,191 | 20,198 |

IV

BY VETERINARY ASSISTANTS ON TOUR DURING 1919-20.

| TREATED FOR CONTAGIOUS DISEASES. | | | | TREATED FOR NON-CONTAGIOUS DISEASES. | | | | Total number of cases treated and castrations performed. | REMARKS. |
|----------------------------------|----------|---------|---------|--------------------------------------|----------|---------|--------|--|----------|
| Equines. | Bovines. | Others. | Total. | Equines. | Bovines. | Others. | Total. | | |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 57 | 1,730 | 216 | 2,003 | 143 | 885 | 695 | 1,723 | 5,189 | |
| 54 | 1,007 | 96 | 1,157 | 74 | 553 | 59 | 686 | 2,693 | |
| 277 | 2,034 | 284 | 2,595 | 127 | 1,495 | 151 | 1,773 | 6,330 | |
| 55 | 1,028 | 61 | 1,144 | 99 | 653 | 130 | 882 | 2,930 | |
| 27 | 2,064 | 52 | 2,143 | 38 | 311 | 16 | 365 | 2,935 | |
| 11 | 2,097 | 139 | 2,247 | 8 | 894 | 21 | 928 | 3,207 | |
| 6 | 41,729 | 16,485 | 58,220 | 175 | 7,864 | 275 | 8,314 | 66,606 | |
| 1 | 11,050 | 10 | 11,061 | 126 | 1,130 | 20 | 1,276 | 12,592 | |
| ... | 9,775 | ... | 9,775 | 292 | 1,011 | 11 | 1,314 | 11,357 | |
| 67 | 1,107 | 116 | 1,290 | 79 | 391 | 34 | 504 | 2,167 | |
| 130 | 2,375 | 114 | 2,619 | 229 | 1,214 | 44 | 1,437 | 5,379 | |
| 5 | 11,037 | 282 | 11,324 | 370 | 939 | 12 | 1,321 | 13,303 | |
| 3 | 6,837 | ... | 6,840 | 77 | 840 | 107 | 1,024 | 8,079 | |
| 1 | 4,660 | 103 | 4,764 | 255 | 489 | 13 | 757 | 5,629 | |
| 1 | 7,533 | ... | 7,534 | 81 | 1,270 | 18 | 1,369 | 8,928 | |
| 4 | 4,485 | 21 | 4,510 | 132 | 577 | 43 | 752 | 5,551 | |
| ... | 117 | 81 | 198 | 5 | 43 | ... | 43 | 363 | |
| 1 | 4,995 | 298 | 5,294 | 175 | 239 | 31 | 445 | 6,423 | |
| 4 | 6,136 | 45 | 6,185 | 183 | 249 | 26 | 458 | 9,850 | |
| 2 | 5,183 | 10 | 5,195 | 258 | 387 | 41 | 686 | 6,239 | |
| 8 | 5,862 | 562 | 6,432 | 136 | 194 | 81 | 411 | 7,403 | |
| 2 | 11,745 | 1,049 | 12,796 | 63 | 66 | 65 | 194 | 13,141 | |
| 15 | 2,922 | 68 | 3,005 | 133 | 208 | 52 | 393 | 4,211 | |
| 42 | 1,087 | 104 | 1,233 | 59 | 467 | 39 | 565 | 2,528 | |
| 101 | 1,144 | 23 | 1,268 | 258 | 1,292 | 30 | 1,510 | 3,313 | |
| 571 | 3,441 | 30 | 4,042 | 135 | 618 | 31 | 784 | 5,067 | |
| 39 | 1,643 | 32 | 1,714 | 136 | 515 | 28 | 679 | 2,917 | |
| 46 | 2,951 | 41 | 3,038 | 240 | 1,355 | 110 | 1,705 | 6,878 | |
| 100 | 1,457 | 285 | 1,842 | 215 | 300 | 90 | 605 | 3,459 | |
| 1,630 | 159,231 | 20,607 | 181,468 | 4,301 | 26,449 | 2,273 | 33,023 | 234,589 | |

TABLE

SHOWING NUMBER OF ANIMALS TREATED AND CASTRATED AT

| District. | Number of Veterinary Dispensaries. | Number of Veterinary Assistants employed. | NUMBER OF IN-PATIENTS TREATED DURING THE YEAR. | | | |
|--------------------------------|------------------------------------|---|--|----------|----------------|--------|
| | | | Equines. | Bovines. | Other animals. | Total. |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Hisar | 5 | 5 | 210 | 261 | 64 | 535 |
| Rohtak | 5 | 5 | 386 | 605 | 44 | 1,035 |
| Gurgaon | 6 | 6 | 292 | 387 | 16 | 695 |
| Karnal | 4 | 4 | 289 | 311 | 25 | 625 |
| Ambala | 5 | 5 | 289 | 305 | 27 | 621 |
| Simla | 3 | 2 | 101 | 27 | 267 | 395 |
| Kangra | 7 | 7 | 135 | 26 | 6 | 167 |
| Hoshiarpur | 5 | 5 | 1,853 | 265 | 28 | 2,144 |
| Jullundur | 6 | 6 | 460 | 569 | 29 | 1,058 |
| Ludhiana | 4 | 4 | 305 | 370 | 32 | 687 |
| Ferozepore | 6 | 6 | 305 | 168 | 122 | 685 |
| Labore | 4 | 4 | 413 | 176 | 7 | 596 |
| Amritsar | 6 | 6 | 2,016 | 600 | 536 | 2,652 |
| Gurdaspur | 7 | 7 | 713 | 215 | 58 | 986 |
| Stalkot | 5 | 5 | 206 | 53 | 5 | 264 |
| Gujranwala | 3 | 3 | 480 | 153 | 17 | 650 |
| Sheikhpura | 2 | 2 | 25 | 13 | ... | 38 |
| Gujrat | 4 | 4 | 145 | 53 | 5 | 203 |
| Shahpur | 5 | 5 | 192 | 36 | 7 | 235 |
| Jhelum | 4 | 4 | 125 | 55 | 14 | 194 |
| Rawalpindi | 5 | 5 | 241 | 31 | 149 | 421 |
| Attock | 4 | 4 | 164 | 46 | 8 | 218 |
| Mianwali | 4 | 4 | 161 | 22 | 6 | 189 |
| Montgomery | 4 | 4 | 254 | 68 | 120 | 442 |
| Lyallpur | 6 | 6 | 246 | 216 | 15 | 477 |
| Jhang | 3 | 3 | 212 | 66 | 32 | 310 |
| Multan | 5 | 5 | 426 | 115 | 59 | 600 |
| Muzaffargarh | 6 | 6 | 255 | 244 | 36 | 535 |
| Dera Ghazi Khan | 4 | 4 | 221 | 46 | 36 | 303 |
| Total | 137 | 136 | 11,100 | 5,538 | 1,793 | 18,431 |
| Government Cattle Farm, Hisar. | 1 | 2 | 162 | 272 | 52 | 516 |

VETERINARY HOSPITALS AND DISPENSARIES DURING THE YEAR 1919-20.

| NUMBER OF OUT-PATIENTS TREATED DURING THE YEAR. | | | | Grand total of in-patients and out-patients treated during the year. | Total number of cases supplied with medicines but not brought to Hospitals. | CASTRATIONS PERFORMED. | | | | Receipts. | Expenditure. |
|---|----------|----------------|---------|--|---|------------------------|----------|----------------|--------|-----------|--------------|
| Equines. | Bovines. | Other animals. | Total. | | | Equines. | Bovines. | Other animals. | Total. | | |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 2,426 | 5,718 | 2,913 | 11,057 | 11,592 | 2,898 | 29 | 1,166 | 96 | 1,308 | Rs. 646 | Rs. 4,795 |
| 3,407 | 9,069 | 1,074 | 14,150 | 15,385 | 1,018 | 67 | 1,055 | 157 | 1,279 | 307 | 6,612 |
| 3,238 | 10,945 | 3,475 | 16,808 | 17,503 | 2,674 | 23 | 850 | 202 | 1,140 | 117 | 6,223 |
| 2,504 | 4,897 | 1,572 | 8,973 | 9,598 | 1,530 | 28 | 369 | 96 | 433 | 410 | 4,729 |
| 2,164 | 5,978 | 2,151 | 10,193 | 10,814 | 1,440 | 68 | 251 | 48 | 370 | 507 | 5,853 |
| 431 | 476 | 828 | 1,735 | 2,130 | 229 | 10 | 5 | 22 | 37 | 9,603 | 10,703 |
| 1,991 | 2,164 | 1,849 | 6,004 | 6,171 | 73,265 | 70 | 4 | 19 | 93 | 49 | 5,109 |
| 3,521 | 7,693 | 1,365 | 12,579 | 14,723 | 8,432 | 84 | 318 | 90 | 402 | 175 | 7,517 |
| 3,707 | 9,594 | 1,533 | 14,834 | 15,892 | 1,549 | 26 | 365 | 32 | 423 | 306 | 9,140 |
| 2,136 | 6,347 | 2,220 | 10,703 | 11,310 | 432 | 58 | 751 | 27 | 836 | 347 | 8,227 |
| 4,519 | 6,698 | 2,372 | 13,589 | 14,274 | 1,063 | 86 | 749 | 107 | 942 | 2,041 | 6,446 |
| 4,617 | 4,832 | 881 | 10,330 | 10,926 | 533 | 100 | 445 | 5 | 550 | 272 | 4,962 |
| 6,298 | 8,947 | 1,722 | 16,967 | 19,925 | 1,016 | 38 | 437 | 11 | 486 | 2,327 | 8,101 |
| 7,503 | 6,656 | 1,519 | 16,068 | 17,054 | 2,535 | 3 | 116 | 19 | 138 | 370 | 4,936 |
| 5,678 | 12,672 | 1,531 | 19,881 | 20,175 | 7,316 | 17 | 97 | 3 | 117 | 165 | 4,051 |
| 4,742 | 5,775 | 1,238 | 11,755 | 12,405 | 890 | 43 | 332 | 14 | 389 | 447 | 5,146 |
| 724 | 788 | 120 | 1,632 | 1,670 | 61 | 5 | 156 | ... | 161 | ... | 564 |
| 3,431 | 4,433 | 729 | 8,593 | 8,796 | 122 | 33 | 463 | 3 | 499 | 68 | 4,320 |
| 3,415 | 2,757 | 1,214 | 7,416 | 7,651 | 352 | 32 | 185 | 31 | 248 | 671 | 4,366 |
| 2,611 | 3,256 | 880 | 6,747 | 6,941 | 145 | 12 | 199 | 5 | 216 | 174 | 4,361 |
| 4,146 | 3,694 | 1,769 | 9,599 | 10,320 | 1,165 | 89 | 118 | 2 | 206 | 591 | 3,454 |
| 3,431 | 5,021 | 1,364 | 9,816 | 10,684 | 2,054 | 10 | 161 | 1 | 172 | 78 | 7,542 |
| 2,271 | 2,454 | 898 | 5,623 | 5,812 | 835 | 45 | 77 | 11 | 133 | 114 | 5,242 |
| 3,830 | 2,845 | 1,053 | 7,728 | 8,200 | 472 | 32 | 318 | 28 | 378 | 566 | 19,365 |
| 4,901 | 6,421 | 1,070 | 12,392 | 12,869 | 359 | 44 | 620 | 2 | 666 | 652 | 3,756 |
| 2,176 | 3,022 | 746 | 4,944 | 5,254 | 197 | 11 | 22 | 56 | 89 | 183 | 8,912 |
| 4,453 | 3,359 | 1,979 | 9,791 | 10,291 | 1,678 | 102 | 108 | 11 | 221 | 357 | 3,972 |
| 4,718 | 4,891 | 1,718 | 11,328 | 11,863 | 1,510 | 19 | 70 | 20 | 109 | 134 | 7,090 |
| 5,732 | 2,661 | 1,288 | 9,681 | 9,994 | 859 | 80 | 126 | 63 | 269 | 150 | 4,028 |
| 105,111 | 152,544 | 43,591 | 301,246 | 319,712 | 116,429 | 1,263 | 9,896 | 1,238 | 12,397 | 22,115 | 1,78,335 |
| 89 | 89 | 55 | 233 | 749 | ... | 31 | 60 | ... | 91 | ... | ... |

TABLE VII

SHOWING TOTAL STRENGTH OF SUBORDINATE VETERINARY STAFF
EMPLOYED DURING THE YEAR 1919-20.

| Province | How occupied. | Whether paid from Provincial or Local Funds. | Veterinary Inspectors. | Veterinary Assistants. | Subordinate Staff not included in previous columns. | REMARKS. |
|------------|-------------------------|--|------------------------|------------------------|---|--|
| | 2 | 3 | 4 | 5 | 6 | 7 |
| | | | No. | No. | | |
| Punjab ... | In Schools and Colleges | Provincial. | ... | ... | ... | |
| | In Dispensaries ... | " | ... | 136 | ... | |
| | On other work ... | " | 18 | (a) 56 | ... | (a) Officiating as 2 Veterinary Inspectors. |
| | | | | | | Itinerating Veterinary Assistants. 20 |
| | | | | | | Attached to Offices of Superintendents. 5 |
| | | | | | | Attached to Government Cattle Farm, Hisar. 3 |
| | | | | | | Reserve Veterinary Assistants. 9 |
| | | | | | | Vacancies ... 17 |
| | | | | | | Total ... 56 |
| Total ... | ... | | 18 | 192 | ... | |

TABLE VIII

RETURN OF STUD BULLS FOR THE YEAR 1919-20.

| DISTRICT. | PROPERTY OF LOCAL BODIES. | | | | | REMARKS. |
|---------------------|---------------------------|---------------------------|---------------------|-----------------------------|---------------------------------------|---|
| | Number on 1st April 1919. | Obtained during the year. | | Casualties during the year. | Balance remaining on 31st March 1920. | |
| | | Number. | Average price paid. | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Hissar ... | 86 | 15 | 200 | 8 | 93 | |
| Rohtak ... | 25 | 10 | 200 | ... | 35 | |
| Gurgaon ... | 42 | 7 | 200 | 5 | 44 | |
| Karnal ... | 64 | 15 | 200 | 2 | 77 | |
| Ambala ... | 60 | 10 | 200 | 11 | 59 | |
| Simla ... | 2 | ... | ... | ... | 2 | |
| Kangra ... | 20 | ... | ... | ... | 20 | |
| Hoshiarpur ... | 57 | 10 | 200 | 6 | 61 | |
| Jullundur ... | (a) 72 | 2 | 215 | 8 | 66 | (a) Includes 2 bulls that had strayed and were found during the year. |
| Ludhiana ... | (b) 50 | 10 | 200 | 3 | 57 | (b) Includes one bull that had strayed and was found during the year. |
| Ferozapore ... | 95 | 10 | 200 | 6 | 99 | |
| Lahore ... | 128 | 8 | 200 | 13 | 123 | |
| Amritsar ... | 45 | 2 | 202 | 3 | 44 | |
| Gurdaspur ... | 66 | 5 | 200 | 3 | 68 | |
| Sialkot ... | 49 | 3 | 200 | 2 | 50 | |
| Gujranwala ... | 88 | 10 | 200 | (e) 64 | 34 | (c) Includes 44 bulls that had been transferred to Sheikhupura district. |
| Sheikhupura ... | ... | 44 | 200 | 1 | 43 | |
| Gujrat ... | 37 | 10 | 200 | 1 | 46 | |
| Shahpur ... | (d) 43 | 28 | 200 | 5 | 66 | (d) Includes one buffalo bull. |
| Jhelum ... | 3 | (e) 5 | 261 | ... | 8 | (e) & (f) These are Dhannis. |
| Rawalpindi ... | 9 | (f) 1 | 230 | 1 | 9 | |
| Attock ... | 4 | ... | ... | ... | 4 | |
| Mianwali ... | 15 | (g) 4 | 200 | 2 | 17 | (g) One Montgomery breed purchased from the Government Cattle Farm, Hissar, and three buffalo bulls. |
| Montgomery ... | (h) 58 | (k) 4 | 251 | 7 | 55 | (h) Includes one bull that had strayed from the Gurdaspur district and was subsequently settled in this district. |
| Lyalpur ... | 55 | 30 | 200 | 8 | 77 | |
| Jhang ... | 20 | 3 | 200 | 4 | 19 | |
| Multan ... | 37 | 3 | 200 | 3 | 37 | |
| Muzaffargarh ... | 40 | 6 | 200 | 8 | 38 | |
| Dera Ghazi Khan ... | ... | (l) 1 | 200 | ... | 1 | (k) Montgomery breed purchased from Local Farms. (l) Baghnari breed. |
| Total ... | 1,270 | 256 | ... | 174 | 1,352 | |

TABLE X.

RETURN OF HORSE, PONY AND DONKEY STALLIONS UNDER LOCAL BODIES FOR THE YEAR 1919-20.

| DETAILS. | HORSE AND PONY STALLIONS UNDER LOCAL BODIES. | | | | | | | | | | DONKEY STALLIONS UNDER LOCAL BODIES. | | | | | | | | | |
|----------------------------|--|----------|---------------|--------|-------|----------|---------------|-----------------|-----|-----|--------------------------------------|---------|--------------------------|----------|----------|---------------|----------|-------------|-----------|--------|
| | Horses. | | | | | Forses. | | | | | Total | Ponies. | Total Horses and Ponies. | Italian. | Cyprian. | Country-bred. | Persian. | Catalonian. | Stallian. | Total. |
| | Arab. | Persian. | Country-bred. | Total. | Arab. | Persian. | Country-bred. | T. R. Eng. Hsh. | 12 | 13 | | | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| Balance on 1st April 1919 | 4 | ... | ... | ... | ... | 4 | 67 | ... | 5 | 1 | ... | 63 | 67 | ... | 5 | 62 | ... | 13 | 4 | 74 |
| Increase { | ... | ... | ... | ... | ... | ... | 2 | ... | ... | ... | ... | 2 | 2 | ... | ... | 2 | ... | ... | ... | 2 |
| Purchased in India | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | 1 | 1 | ... | ... | 3 | ... | ... | ... | 3 |
| Received from C. V. D. | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | 1 | 1 | ... | ... | 3 | ... | ... | ... | 3 |
| Totals | 4 | ... | ... | ... | ... | 4 | 60 | ... | 5 | 1 | ... | 66 | 70 | ... | 5 | 57 | ... | 13 | 4 | 79* |
| Decrease { | ... | ... | ... | ... | ... | ... | 2 | ... | ... | ... | ... | 2 | 2 | ... | ... | 1 | ... | ... | ... | 1 |
| Died | ... | ... | ... | ... | ... | ... | 2 | ... | ... | ... | ... | 2 | 2 | ... | ... | 1 | ... | ... | ... | 1 |
| Sold | ... | ... | ... | ... | ... | ... | 2 | ... | ... | ... | ... | 2 | 2 | ... | ... | 1 | ... | ... | ... | 1 |
| Destroyed | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | 1 | 1 | ... | ... | ... | ... | ... | ... | ... |
| Transferred to ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Total Decrease | ... | ... | ... | ... | ... | ... | 5 | ... | ... | ... | ... | 5 | 5 | ... | ... | 2 | ... | ... | ... | 2 |
| Balance on 31st March 1920 | 4 | ... | ... | ... | ... | 4 | 55 | ... | 5 | 1 | ... | 61 | 65 | ... | 5 | 55 | ... | 13 | 4 | 77 |

* Includes 2 purchased by Mianwalli District Board but not yet included in the Standard Book.

TABLE XI.

SERVICES AND PRODUCE OF EACH CLASS OF HORSE, PONY AND DONKEY STALLIONS, UNDER LOCAL BODIES, DURING 1919-20.

| Horse, Pony or Donkey. | Province. | Stallions on Register on 31st March 1920. | STALLIONS ACTUALLY EMPLOYED AT STUD. | | NUMBER OF MARES COVERED. | | AVERAGE NUMBER OF MARES COVERED PER STALLION EMPLOYED AT STUD. | | REMARKS. | |
|------------------------------|------------|---|--------------------------------------|----------------|--------------------------|----------------|--|----------------|----------|---|
| | | | Year under report. | Previous year. | Year under report. | Previous year. | Year under report. | Previous year. | | |
| | | | 1 | 2 | 3 | 4 | 5 | 6 | | 7 |
| Horse ... | Punjab ... | 4 | 4 | 4 | 176 | 199 | 44 | 49.75 | | |
| | Total ... | 4 | 4 | 4 | 176 | 199 | 44 | 49.75 | | |
| Pony ... | Punjab ... | 61 | 60 | 61 | 2,971 | 2,979 | 49.51 | 48.83 | | |
| | Total ... | 61 | 60 | 61 | 2,971 | 2,979 | 49.51 | 48.83 | | |
| Donkeys ... | Punjab ... | 77 | 69 | 71 | 3,692 | 3,680 | 53.5 | 51.83 | | |
| | Total ... | 77 | 69 | 71 | 3,692 | 3,680 | 53.5 | 51.83 | | |

TABLE XII.

SHOWING AVERAGE COST OF FEED, KEEP, ATTENDANCE, ETC., OF HORSE, PONY AND DONKEY STALLIONS DURING THE YEAR 1919-20.

| District. | HORSE. | | PONY. | | DONKEY. | | REMARKS. |
|------------------|--------------------|----------------|--------------------|----------------|--------------------|----------------|----------|
| | Year under report. | Previous year. | Year under report. | Previous year. | Year under report. | Previous Year. | |
| | 1 | 2 | 3 | 4 | 5 | 6 | |
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | |
| Hissar ... | ... | ... | 507 | 640 | 315 | 497 | |
| Rehtak ... | ... | ... | 529 | 502 | 236 | 199 | |
| Gurgaon ... | ... | ... | 596 | 550 | 335 | 361 | |
| Karnal ... | ... | ... | 668 | 583 | 329 | 243 | |
| Ambala ... | ... | ... | 623 | 503 | 414 | 232 | |
| Kangra ... | ... | ... | 493 | 347 | 235 | 266 | |
| Hoshiarpur ... | 640 | 412 | 648 | 444 | 315 | 327 | |
| Jullundur ... | ... | ... | 610 | 425 | 366 | 200 | |
| Ludhiana ... | ... | ... | 553 | 339 | 399 | 230 | |
| Gurdaspur ... | ... | ... | 396 | 296 | 203 | 175 | |
| Sialkot ... | ... | ... | 593 | 480 | 337 | 227 | |
| Mianwali ... | 636 | 460 | 637 | 487 | 415 | 245 | |
| Muzaffargarh ... | 548 | 395 | 731 | 395 | 183 | 263 | |
| Total ... | 1,824 | 1,267 | 7,594 | 5,991 | 4,083 | 3,425 | |
| Average ... | 608 | 422 | 583 | 460 | 314 | 263 | |

TABLE
ABSTRACT OF PARTICULARS REGARDING HORSE FAIRS AND SHOWS

| Name of Fair. | Number of horse fairs and shows held. | TOTAL NUMBER OF ANIMALS PRESENT. | | TOTAL NUMBER COMPETING FOR PRIZES. | | TOTAL NUMBER OF HORSE STOCK (NOT INCLUDING BRANDED MARKS) PRESENT. | | NUMBER OF REMOUNTS PURCHASED. | | | | PRICE PAID FOR REMOUNTS. | | |
|---------------|---------------------------------------|----------------------------------|----------------|------------------------------------|----------------|--|-----------------------|-------------------------------|---------------------|-------------|--------|--------------------------|---------------|----------------|
| | | Year under report. | Previous year. | Year under report. | Previous year. | Belonging to breeders. | Belonging to dealers. | For Remount Department. | For Native Cavalry. | For Police. | Total. | Highest price. | Lowest price. | Average price. |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| Ambala .. | 1 | 441 | 584 | ... | 123 | 441 | ... | ... | ... | ... | ... | ... | ... | ... |
| Jullundur .. | 2 | 1,089 | 1,169 | 110 | 76 | 1,089 | ... | ... | ... | ... | ... | ... | ... | ... |
| Stalkot ... | 1 | 105 | 176 | 20 | 35 | ... | 105 | ... | ... | ... | ... | 240 | 10 | 36 |
| Gurdaspur | 2 | 809 | 763 | 30 | 28 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Mianwall... | 1 | 528 | 1,074 | 75 | 224 | 145 | ... | ... | ... | ... | ... | ... | ... | ... |
| Total ... | 7 | 3,022 | 3,766 | 235 | 466 | 1,675 | 105 | ... | ... | ... | ... | 240 | 10 | 36 |

XIII.

HELD IN NON-SELECTED DISTRICTS DURING THE YEAR 1919-20.

| NUMBER OF MULES PURCHASED. | | | PRICE PAID FOR MULES BY GOVERNMENT. | | | Total number of animals sold. | PRIZE-MONEY PROVIDED. | | | | | | | Amount sanctioned by Government of India for next year's fair or show. | REMARKS. |
|----------------------------|------------|--------|-------------------------------------|---------------|----------------|-------------------------------|-----------------------|------------------------|-------------------|---------------------|--------|--------------------------|---------------------------|--|----------|
| By Government. | By others. | Total. | Highest price. | Lowest price. | Average price. | | From Imperial Funds. | From Provincial Funds. | From Local Funds. | From other sources. | Total. | Amount actually awarded. | Number of medals awarded. | | |
| 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| ... | 1 | 1 | ... | ... | ... | 101 | ... | ... | 600 | ... | 600 | 329 | ... | ... | ... |
| ... | 98 | 98 | 385 | 78 | 232 | 629 | ... | ... | 329 | ... | 329 | 329 | ... | ... | ... |
| ... | 53 | 53 | 300 | 120 | 163 | 136 | ... | ... | 314 | ... | 314 | 78 | ... | ... | ... |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | 250 | ... | 250 | 153 | ... | ... | ... |
| ... | ... | ... | ... | ... | ... | 4 | ... | ... | 267 | ... | 267 | 250 | ... | ... | ... |
| ... | 152 | 152 | 655 | 196 | 394 | 670 | ... | ... | 1,260 | ... | 1,260 | 1,139 | ... | ... | ... |

TABLE
ABSTRACT OF PARTICULARS REGARDING CATTLE

| Name of Fair. | Number of Cattle Fairs and Shows held. | TOTAL NUMBER OF STOCK PRESENT. | | | | | | |
|-----------------|--|--------------------------------|-----------|--------|--------------|------------|---------|---------|
| | | Bulls. | Fullocks. | Cows. | Young stock. | Buffaloes. | Camels. | Others. |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Hissar ... | 7 | 1 | 47,218 | 1,385 | 14,629 | 1,648 | 5,271 | 2,149 |
| Rihtak ... | 3 | ... | 69,767 | 2,250 | ... | 7,892 | 445 | 2,350 |
| Gurgaon ... | 2 | 14,737 | 541 | 8,774 | 254 | 65 | 32 | ... |
| Ambala ... | 3 | 3 | 1,048 | 423 | 370 | 3,742 | 19 | 292 |
| Jullundur ... | 2 | ... | 1,581 | 4,896 | 973 | 5,014 | 27 | 727 |
| Ludhiana ... | 2 | 93 | 8,638 | 9,555 | 13,809 | 10,714 | 406 | 17,487 |
| Ferozepore ... | 10 | 83 | 14,796 | 9,001 | 12,395 | 21,778 | 8,291 | 12,482 |
| Lahore ... | 2 | 46 | 1,048 | 536 | 1,230 | 1,596 | 13 | 1,974 |
| Amritsar ... | 2 | ... | ... | ... | ... | ... | ... | ... |
| Gurdaspur ... | 2 | 21 | 1,550 | 2,947 | 995 | 3,729 | 8 | 114 |
| Sialkot ... | 5 | 27 | 7,234 | 10,293 | 4,540 | 33,265 | 76 | 2,861 |
| Gujranwala ... | 1 | ... | 5,176 | 3,557 | 2,407 | 5,006 | ... | 15 |
| Jhelum ... | 1 | 205 | 149 | 71 | 28 | ... | ... | 175 |
| Shahpur ... | 3 | 142 | 237 | 111 | 131 | 75 | 12 | 117 |
| Rawalpindi ... | 2 | 286 | 1,725 | 140 | 349 | 22 | 31 | 1,392 |
| Attock ... | 2 | 106 | 555 | 1,202 | 1,295 | ... | ... | 18 |
| Mianwali ... | 2 | 143 | 182 | 69 | 120 | 20 | 23 | 172 |
| Lyallpur ... | 2 | 3 | 3,596 | 3,171 | 802 | 6,872 | 4,416 | 44 |
| Multan ... | 1 | 5 | 1,374 | 141 | 70 | 80 | 77 | 391 |
| Dera Ghazi Khan | 1 | 115 | 80 | 22 | 75 | 4 | ... | 4 |
| Total .. | 55 | 16,016 | 1,66,495 | 58,544 | 54,512 | 101,025 | 19,437 | 42,754 |

XIV.

FAIR: AND SHOWS HELD DURING THE YEAR 1919-20.

| AVERAGE PRICE OF ANIMAL SOLD. | | | | | Amount realized in fees. | Total number of animals that competed for prizes. | PRIZE MONEY PROVIDED. | | | | | | Amount actually awarded. | Number of medals awarded. | REMARKS. |
|-------------------------------|-----------|-------|------------|---------|--------------------------|---|-----------------------|------------------------|------------------|---------------------|--------|--------|--------------------------|---------------------------|----------|
| Bulls. | Bullocks. | Cows. | Buffaloes. | Camels. | | | From Imperial Funds. | From Provincial Funds. | From Local Fund. | From other sources. | Total. | | | | |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | |
| Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | | | | Rs. | | Rs. | Rs. | | | |
| 145 | 86 | 32 | 49 | 123 | 6,402 | 92 | ... | ... | 653 | ... | 653 | 653 | ... | ... | |
| ... | 70 | 24 | 84 | 153 | 45,660 | 419 | ... | ... | 948 | ... | 948 | 948 | ... | ... | |
| ... | 95 | 24 | 49 | 150 | 7,346 | ... | ... | ... | 890 | ... | 896 | ... | ... | ... | |
| ... | 44 | 24 | 45 | 140 | 1,327 | 18 | ... | ... | 200 | ... | 200 | 25 | ... | ... | |
| ... | 21 | 15 | 51 | 150 | 7,640 | 251 | ... | ... | 673 | ... | 673 | 673 | ... | ... | |
| ... | 78 | 40 | 71 | 87 | 4,177 | 329 | ... | ... | 1,776 | ... | 1,776 | 1,330 | ... | ... | |
| ... | 51 | 31 | 76 | 124 | 44,233 | 681 | ... | ... | 2,023 | ... | 2,023 | 1,923 | 1 | ... | |
| 97 | 173 | 92 | 134 | 80 | 1,201 | 330 | ... | ... | 762 | ... | 762 | 762 | ... | ... | |
| 23 | 31 | 31 | 48 | 155 | 28,754 | 108 | ... | ... | 1,297 | ... | 1,297 | 419 | ... | ... | |
| ... | 32 | 31 | 74 | ... | 3,921 | 94 | ... | ... | 250 | ... | 250 | 196 | ... | ... | |
| ... | 49 | 24 | 61 | 78 | 37,770 | 285 | ... | ... | 2,311 | ... | 2,311 | 1,537 | ... | ... | |
| ... | 20 | 22 | 47 | ... | 4,382 | 55 | ... | ... | 640 | ... | 640 | 415 | ... | ... | |
| ... | 177 | 116 | ... | ... | 50 | 459 | ... | ... | 716 | ... | 716 | 716 | 2 | ... | |
| ... | 40 | 30 | 60 | 150 | 400 | 617 | ... | ... | 1,055 | ... | 1,055 | 980 | 4 | ... | |
| 92 | ... | 42 | 97 | 119 | 1,297 | 403 | ... | ... | 620 | ... | 620 | 620 | ... | ... | |
| ... | ... | ... | ... | ... | ... | 666 | ... | ... | 812 | ... | 812 | 812 | 2 | ... | |
| ... | 88 | 57 | 108 | ... | 354 | 475 | ... | ... | 682 | ... | 682 | 632 | ... | ... | |
| ... | 41 | 35 | 51 | 122 | 6,630 | 385 | ... | ... | 1,280 | ... | 1,280 | 697 | ... | ... | |
| ... | ... | ... | ... | ... | ... | 568 | ... | ... | 745 | ... | 745 | 724 | ... | ... | |
| ... | ... | ... | ... | ... | ... | 4 | 185 | ... | 247 | ... | 247 | 247 | ... | ... | |
| ... | ... | ... | ... | ... | 2,01,557 | 6,300 | ... | ... | 18,592 | ... | 18,592 | 14,365 | 9 | ... | |

TABLE XIV A.

STATEMENT SHOWING COST OF THE CIVIL VETERINARY DEPARTMENT
DURING THE OFFICIAL YEAR IN THE PROVINCE OF THE PUNJAB.

| Major Heads. | AMOUNT. | | | | REMARKS. |
|----------------------------|-----------|-------------|----------|-----------|----------|
| | Imperial. | Provincial. | Local. | Total. | |
| 1 | 2 | 3 | 4 | 5 | 6 |
| | Rs. | Rs. | Rs. | Rs. | |
| Superintendence ... | ... | 83,716 | ... | 83,716 | |
| Veterinary Instruction ... | ... | 1,18,508 | 3,712 | 1,22,020 | |
| Subordinate Establishment | ... | 1,49,575 | 25,695 | 1,75,270 | |
| Hospitals and Dispensaries | ... | 22,221 | 1,25,990 | 1,48,211 | |
| Breeding Operations ... | ... | 1,83,338 | 2,29,387 | 4,12,725 | |
| Prizes ... | ... | 5,900 | 10,083 | 15,983 | |
| Fairs and Shows | ... | ... | 71,606 | 71,606 | |
| Total ... | ... | 5,63,258 | 4,36,273 | 10,29,531 | |

TABLE XV.

(EXPENDITURE BY LOCAL BODIES, AS SUPPLIED
BY DISTRICTS.)

TABLE

(EXPENDITURE BY LOCAL BODIES)

| District. | HOSPITAL CHARGES. | | | | | | | BREEDING | |
|--------------------------------------|-------------------|---------------------------------|------------------------------------|---------------------------------------|------------|----------------|----------|-----------|----------|
| | Stipends. | Pay of compounders and menials. | Cost of medicines and instruments. | Expenditure on buildings and repairs. | Furniture. | Contingencies. | Total. | Bulls. | |
| | | | | | | | | Purchase. | Up-keep. |
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | |
| Hissar | 120 | 2,236 | 1,300 | 809 | 250 | 200 | 4,795 | 2,250 | 37 |
| Rohtak | ... | 2,382 | 2,980 | 1,764 | ... | ... | 6,612 | 1,500 | 288 |
| Gurgaon | 221 | 2,389 | 2,044 | 1,402 | 63 | 130 | 6,221 | 1,051 | 681 |
| Karnal | 130 | 1,690 | 1,553 | 1,030 | ... | 456 | 4,729 | 2,250 | 309 |
| Ambala | ... | 2,112 | 1,940 | 936 | 151 | 214 | 5,383 | 1,675 | 358 |
| Simsa District Board | ... | 363 | 698 | 104 | ... | 63 | 1,218 | ... | ... |
| Simsa Municipal Committee | ... | 870 | 538 | 916 | ... | 7,161 | 9,455 | ... | 94 |
| Kangra | ... | 1,653 | 2,736 | 810 | ... | ... | 5,199 | ... | ... |
| Hoshiarpur | ... | 1,648 | 1,357 | 3,341 | 511 | 600 | 7,517 | 2,039 | ... |
| Jullundur District Board | 140 | 3,231 | 4,011 | 1,907 | ... | ... | 9,149 | 430 | 470 |
| Jullundur Municipal Committee | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Ludhiana | 102 | 1,987 | 1,612 | 4,406 | 89 | 143 | 8,227 | 2,054 | 821 |
| Ferozapore | 130 | 2,436 | ... | 622 | ... | 3,088 | 6,446 | 1,225 | 557 |
| Muktsar Municipal Committee | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Abohar Notified Area | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Zira Municipal Committee | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Lahore | 98 | 2,199 | 1,809 | 954 | ... | ... | 4,962 | 1,600 | 198 |
| Amritsar District Board | 176 | 1,248 | 1,348 | 945 | ... | 770 | 4,311 | 405 | 468 |
| Amritsar Municipal Committee | 240 | 1,195 | 614 | 454 | ... | 1,527 | 3,790 | ... | ... |
| Gurdaspur | 100 | 1,980 | 1,680 | 1,276 | ... | ... | 4,938 | 1,025 | 289 |
| Sialkot | 120 | 1,898 | 1,309 | 435 | 232 | 177 | 4,051 | 600 | 840 |
| Gujranwala | 186 | 2,684 | 1,042 | 798 | ... | 620 | 5,148 | 1,200 | 423 |
| Sheikhpura | 24 | 413 | 111 | ... | 17 | 23 | 564 | 600 | 145 |
| Gujrat | 240 | 1,325 | 856 | 2,083 | 28 | 75 | 4,329 | 2,245 | 668 |
| Shahpur | 20 | 1,689 | 1,384 | 593 | 700 | ... | 4,368 | 6,026 | 769 |
| Jhelum | ... | 1,417 | 1,416 | 1,355 | ... | 73 | 4,261 | 2,013 | 916 |
| Rawalpindi | ... | 1,328 | 1,534 | 592 | ... | ... | 3,454 | 230 | 1,346 |
| Attock | ... | 983 | 1,284 | 4,998 | 35 | 592 | 7,842 | ... | 1,932 |
| Mianwali | 225 | 1,273 | 1,045 | 3,430 | 327 | 167 | 5,242 | 750 | 1,002 |
| Montgomery | ... | 1,438 | 774 | 15,826 | 59 | 1,173 | 19,265 | 1,096 | ... |
| Multan | ... | 1,147 | ... | 684 | ... | 1,921 | 3,756 | 697 | 109 |
| Lyallpur | 1,437 | 2,465 | 2,806 | 3,800 | 85 | 256 | 8,912 | 3,000 | 751 |
| Jhang | 408 | 1,396 | 693 | 647 | 26 | 310 | 3,072 | 558 | 459 |
| Muzaffargarh | 66 | 2,893 | 1,017 | 1,804 | 41 | 1,363 | 7,059 | 1,217 | 1,119 |
| Dera Ghazi Khan | 233 | 1,345 | 1,377 | 1,172 | 70 | 74 | 4,039 | 210 | ... |
| Total | 4,441 | 53,460 | 42,224 | 58,733 | 2,665 | 21,293 | 1,78,235 | 37,931 | 13,039 |

XV.

AS SUPPLIED BY DISTRICTS.

| OPERATIONS. | | | | | FAIRS AND SHOWS. | | | | | Grand total of columns 2, 3, 16 and 20. |
|--------------------|----------|-----------|----------|----------|------------------|----------------|--------------|----------------|----------|---|
| Horses and ponies. | | Donkeys. | | Total. | Horse fair. | | Cattle fair. | | Total. | |
| Purchase. | Up-keep. | Purchase. | Up-keep. | | Prizes. | Contingencies. | Prizes. | Contingencies. | | |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | |
| Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. |
| ... | 3,043 | ... | 1,378 | 6,908 | ... | ... | 663 | 10,098 | 11,661 | 23,474 |
| ... | 3,175 | ... | 945 | 5,908 | ... | ... | 948 | 8,514 | 7,402 | 19,982 |
| ... | 2,990 | ... | 1,005 | 5,096 | ... | ... | ... | 268 | 208 | 12,413 |
| ... | 4,008 | ... | 2,307 | 8,874 | ... | ... | ... | ... | ... | 13,733 |
| ... | 3,115 | ... | 2,070 | 7,118 | 359 | 1,904 | 25 | ... | 879 | 15,638 |
| ... | 83 | ... | ... | 83 | ... | ... | ... | ... | ... | 1,301 |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 9,485 |
| 350 | 498 | ... | 471 | 1,413 | ... | ... | ... | ... | ... | 8,612 |
| ... | 2,685 | ... | 2,517 | 7,141 | ... | ... | ... | ... | ... | 14,658 |
| ... | 3,611 | ... | 1,830 | 6,341 | ... | ... | ... | ... | ... | 15,630 |
| ... | ... | ... | ... | ... | 329 | 2,782 | 673 | 2,784 | 6,668 | 1,688 |
| ... | 3,767 | ... | 4,789 | 10,431 | ... | ... | 1,330 | 3,767 | 3,097 | 23,857 |
| ... | 4,901 | ... | 324 | 7,007 | ... | ... | 615 | 2,562 | 3,067 | 16,640 |
| ... | ... | ... | ... | ... | 885 | 2,189 | 685 | ... | 3,559 | 3,650 |
| ... | ... | ... | ... | ... | ... | ... | 713 | 1,160 | 1,872 | 1,872 |
| ... | ... | ... | 143 | 13,208 | ... | ... | 10 | 265 | 275 | 275 |
| 2,000 | 7,033 | ... | ... | 8,926 | ... | ... | 782 | 6,617 | 7,379 | 25,645 |
| ... | ... | ... | ... | ... | ... | ... | 419 | 8,782 | 9,201 | 14,413 |
| ... | 4,166 | ... | 2,083 | 7,563 | 183 | ... | 196 | 1,598 | 1,917 | 14,546 |
| ... | 3,288 | ... | 2,358 | 7,096 | 78 | ... | 1,537 | 10,976 | 12,591 | 23,818 |
| 1,200 | 3,538 | ... | ... | 6,341 | ... | ... | 445 | 721 | 1,166 | 12,899 |
| ... | 1,423 | ... | ... | 2,373 | ... | ... | 56 | ... | 58 | 3,019 |
| ... | 2,691 | ... | ... | 5,694 | 180 | ... | 536 | ... | 716 | 10,880 |
| ... | 6,098 | 750 | 1,646 | 16,191 | ... | ... | 1,538 | 438 | 1,966 | 22,532 |
| ... | 2,194 | ... | ... | 5,113 | ... | ... | 716 | 431 | 1,167 | 10,541 |
| 600 | 3,736 | ... | ... | 4,912 | 265 | 1,074 | 629 | 231 | 2,180 | 10,546 |
| 1,000 | 3,529 | 1,000 | 1,491 | 9,052 | ... | ... | 812 | 263 | 1,105 | 17,990 |
| ... | 2,545 | 150 | 2,079 | 6,529 | 210 | ... | 686 | 828 | 1,734 | 13,730 |
| 4,000 | 2,332 | 200 | 1,200 | 9,438 | ... | ... | ... | 693 | 693 | 29,306 |
| 850 | 6,136 | ... | ... | 7,702 | 668 | 1,554 | 724 | 707 | 3,651 | 15,109 |
| 1,500 | 8,932 | 370 | 1,500 | 16,062 | 305 | 875 | 697 | 7,435 | 9,312 | 35,723 |
| 1,500 | 3,392 | 1,044 | 488 | 7,461 | 323 | 684 | 466 | 324 | 1,796 | 13,735 |
| ... | 4,384 | ... | 1,998 | 7,816 | ... | ... | ... | ... | ... | 15,201 |
| 1,668 | 4,307 | ... | ... | 5,875 | 370 | 871 | 247 | ... | 92 | 11,436 |
| 14,098 | 1,11,665 | 4,223 | 32,022 | 2,14,872 | 3,933 | 12,527 | 15,416 | 69,352 | 1,01,228 | 4,98,976 |

TABLE

RETURN OF ANIMALS ON THE HISSAR CATTLE

| Detail. | Herd bulls. | Supernumerary bulls. | Cows. | Male produce. | Female produce. | Castrated produce. | Orphanes bullocks (bullocks for service). | Cultivation bullocks. | Males. | Pony mares for male breeding. | Pony stallion. | Others. |
|-----------------------------|---|----------------------|----------|---------------|-----------------|--------------------|---|-----------------------|--------|-------------------------------|----------------|---------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| Balance on 1st April 1919. | 25 | ... | 1,500 | 1,363 | 1,007 | 116 | ... | 290 | 153 | 81 | 1 | 8 |
| Increase. | By birth | ... | ... | 270 | 284 | ... | ... | ... | 37 | ... | ... | ... |
| | .. purchase | ... | ... | 5 | 3 | 2 | ... | 22 | ... | ... | ... | ... |
| | .. presents to the Farm. | ... | ... | ... | 1 | 1 | ... | ... | ... | ... | ... | ... |
| | .. transfer | 11 | 267 | 175 | 27 | ... | 80 | 87 | 56 | ... | ... | ... |
| | .. receipt back from the cattle sold to Sr. St. Guimarraes of Brazil. | ... | ... | ... | 8 | 48 | ... | ... | ... | ... | ... | ... |
| Total | 36 | 267 | 1,680 | 1,671 | 1,343 | 178 | 87 | 368 | 190 | 81 | 1 | 8 |
| Decrease. | Died | ... | ... | 63 | 116 | 55 | 5 | 7 | 4 | 1 | ... | 1 |
| | Destroyed | ... | ... | 3 | 1 | 1 | ... | ... | ... | 3 | ... | ... |
| | Sold | 8 | 229 | 105 | 78 | 237 | 2 | 80 | 22 | 29 | 7 | ... |
| | Transferred | ... | 81 | ... | 334 | 175 | 93 | 7 | 43 | ... | ... | ... |
| Total | 8 | 260 | 171 | 529 | 468 | 100 | 87 | 72 | 33 | 11 | ... | 1 |
| Balance on 31st March 1920. | 28 | 7 | 1,509 | 1,142 | 874 | 76 | ... | 296 | 157 | 70 | 1 | 7 |
| Value Rs. | 9,740 | 3,600 | 1,37,552 | 1,82,655 | 34,850 | 10,915 | ... | 34,790 | 38,950 | 7,470 | 60 | 801 |

XVI.

FARM FOR THE YEAR 1919-20.

| Donkey stallions. | Donkey colts. | Donkey mares. | Donkey fillies. | Hams. | Ewes. | Male lambs. | Female lambs. | Female goats. | Female kids. | Male goats and kids. | Arab pony fillies. | Arab pony mares. | Arab stallion. | Arab colts. | Pony colts. | Buffaloe bull calves. | Total. | REMARKS. |
|-------------------|---------------|---------------|-----------------|-------|-------|-------------|---------------|---------------|--------------|----------------------|--------------------|------------------|----------------|-------------|-------------|-----------------------|----------|----------|
| 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 |
| 6 | 89 | 94 | 80 | 16 | 631 | 261 | 235 | 19 | 14 | 13 | 2 | 4 | .. | .. | .. | 3 | 6,006 | |
| ... | 33 | ... | 27 | ... | ... | 324 | 328 | ... | 11 | 15 | 1 | ... | ... | 2 | 1 | ... | 1,342 | |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 7 | 1 | ... | ... | ... | 40 | |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 5 | 7 | |
| 1 | ... | 16 | ... | 11 | 123 | ... | ... | 7 | ... | ... | ... | ... | ... | ... | ... | ... | 841 | |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 56 | |
| 7 | 121 | 110 | 113 | 27 | 754 | 585 | 563 | 26 | 25 | 28 | 3 | 11 | 1 | 2 | 1 | 8 | 8,292 | |
| 1 | 9 | ... | 4 | 5 | 70 | 43 | 14 | 2 | 5 | 3 | ... | 1 | ... | ... | ... | ... | 409 | |
| ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 9 | |
| 1 | 20 | 7 | 18 | 4 | 98 | 154 | 75 | 8 | 6 | 12 | ... | ... | ... | ... | ... | 5 | 1,205 | |
| ... | 1 | ... | 16 | ... | ... | 11 | 133 | ... | 7 | ... | ... | ... | ... | ... | ... | ... | 841 | |
| 2 | 30 | 8 | 36 | 9 | 168 | 208 | 212 | 10 | 18 | 15 | ... | 1 | ... | ... | ... | 5 | 2,464 | |
| 5 | 91 | 102 | 75 | 18 | 586 | 377 | 351 | 16 | 7 | 13 | 5 | 10 | 1 | 2 | 1 | 3 | 5,628 | |
| 1,510 | 31,700 | 13,750 | 5,600 | 275 | 5,399 | 2,446 | 1,336 | 133 | 15 | 31 | 650 | 4,600 | 1,000 | 209 | 20 | 140 | 5,16,108 | |

TABLE XVI-A.

DETAIL OF SHEEP ON THE HISSAR CATTLE FARM FOR THE YEAR 1919-20.

| Detail. | RAMS. | | | | | EWES. | | | | MALE LAMBS. | | | | FEMALE LAMBS. | | | | REMARKS. | |
|--------------------------------|---------------|----------|-------------|---------|--------|---------------|-------------|---------|--------|-------------|---------|-----|--------|---------------|---------|-----|--------|----------|--------|
| | Country-bred. | English. | Cross-bred. | Merino. | Total. | Country-bred. | Cross-bred. | Merino. | Total. | Cross-bred. | Merino. | — | Total. | Cross bred | Merino. | — | Total. | | Total. |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| Balance on 1st April 1919 ... | 1 | 1 | 9 | 5 | 16 | 51 | 576 | 4 | 631 | 259 | 2 | ... | 261 | 234 | 1 | ... | 235 | 1,143 | |
| Increase { By birth ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 323 | 1 | ... | 324 | 326 | 2 | ... | 328 | 652 | |
| { By transfer ... | ... | ... | 11 | ... | 11 | ... | 22 | 1 | 123 | ... | ... | ... | ... | ... | ... | ... | ... | 134 | |
| { By purchase ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| Total ... | 1 | 1 | 20 | 5 | 27 | 51 | 698 | 5 | 754 | 582 | 3 | ... | 585 | 560 | 3 | ... | 563 | 1,929 | |
| Decrease { Died ... | ... | ... | 2 | 3 | 5 | 6 | 61 | 3 | 70 | 42 | 1 | ... | 43 | 14 | ... | ... | 14 | 132 | |
| { Destroyed ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| { Sale by auction ... | ... | 1 | 3 | ... | 4 | 17 | 81 | ... | 98 | 46 | ... | ... | 46 | 20 | ... | ... | 20 | 168 | |
| { Sale for breeding ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 107 | 1 | ... | 108 | 55 | ... | ... | 55 | 163 | |
| { Transferred ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 11 | ... | ... | 11 | 122 | 1 | ... | 123 | 134 | |
| Total ... | ... | 1 | 5 | 3 | 9 | 23 | 142 | 3 | 168 | 206 | 2 | ... | 208 | 211 | 1 | ... | 212 | 597 | |
| Balance on 31st March 1920 ... | 1 | ... | 15 | 2 | 18 | 28 | 556 | 2 | 584 | 376 | 1 | ... | 377 | 349 | 2 | ... | 351 | 1,332 | |
| Value Rs. ... | 10 | ... | 210 | 55 | 275 | 84 | 5,309 | 6 | 5,899 | 2,346 | 100 | ... | 2,446 | 1,816 | 20 | ... | 1,836 | 9,956 | |

TABLE XVII.

RESULTS OF DONKEY AND MULE BREEDING IN THE HISSAR CATTLE FARM IN THE YEAR 1919-20.

| | Stallions in Register at close of year. | STALLIONS ACTUALLY EMPLOYED AT STUD. | | NUMBER OF MARES COVERED. | | AVERAGE OF MARES COVERED PER STALLION EMPLOYED AT STUD. | | RESULTS OF PREVIOUS YEAR'S COVERINGS. | | AVERAGE RESULT OF PREVIOUS YEAR'S COVERINGS PER STALLION EMPLOYED AT STUD. | | REMARKS. |
|---------------------|---|--------------------------------------|----------------|--------------------------|----------------|---|----------------|---------------------------------------|------------------|--|-------------------|----------|
| | | Year under report. | Previous year. | Year under report. | Previous year. | Year under report. | Previous year. | Number of produce. | Number not held. | Average of produce. | Average not held. | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| Donkey breeding ... | *6 | 7 | 7 | 109 | 91 | 14.29 | 13.0 | †67 | 24 | 9.57 | 8.43 | |
| Mule breeding ... | *6 | 7 | 7 | 76 | 80 | 10.86 | 11.43 | ‡39 | 41 | 5.57 | 5.86 | |

*Includes one donkey stallion lent by the Army Remount Department.

†Includes 3 slips and 4 still-born foals.

‡Includes 2 slips.

TABLE XVIII.

ABSTRACT SHOWING MAIN RESULTS OF THE WORKING OF THE
HISSAR FARM DURING THE OFFICIAL YEAR 1919-20.

Receipts paid into Treasury.

| | Rs. | A. | P. |
|-------------------------------|-----------------|----------|-----------|
| Sale of animals (a) | 1,53,007 | 3 | 7 |
| Sale of garden produce | 119 | 0 | 0 |
| Other heads (b) | 28,104 | 14 | 4 |
| Total | 1,81,231 | 1 | 11 |

Expenditure.

| | | | |
|--|-----------------|----------|-----------|
| Salaries and travelling allowances of Officers | 17,675 | 8 | 8 |
| Ditto ditto Sub or- dinate Staff | 43,004 | 2 | 2 |
| Cultivation expenses | 20,202 | 15 | 9 |
| Feed of animals including reserve fodder ... | 56,460 | 11 | 10 |
| Purchase of animals | 11,875 | 0 | 0 |
| Other heads (c) | 27,105 | 12 | 5 |
| (d) Total | 1,76,324 | 2 | 10 |

*Valuation of animals issued on
Book-Credit.*

| | | | |
|--------------------------------|---------------|-----------|-----------|
| Seige train bullocks | 18,550 | 0 | 0 |
| Mules and donkeys | 30,401 | 12 | 11 |
| Bulls and other animals | 3,200 | 0 | 0 |
| Total | 52,151 | 12 | 11 |

*Valuation of animals, grain and fodder, etc.,
on hand at end of year.*

| | | | |
|--|-----------------|-----------|----------|
| Valuation of animals as per table XVI attached | 5,19,108 | 0 | 0 |
| Ditto grain as per statement attached | 10,422 | 4 | 8 |
| Ditto fodder ditto attached | 70,208 | 10 | 9 |
| Ditto machinery and dead stock articles, etc | 82,838 | 14 | 3 |
| Total | 6,82,077 | 13 | 8 |

(a) Includes valuation of animals issued on book-credit.

(b) Does not include Rs. 600 on account of house-rent recovered by the Public Works Department and includes Rs. 22 adjusted by book-credit on account of cost of cartridges returned.

(c) Includes items adjusted by book-debit system by the Accountant-General, Punjab.

(d) Does not include Rs. 19,895-0-11 on account of temporary and war allowances and also the amount spent on original works and repairs by the Public Works Department during the year.

NOTE.—The value according to the report of the valuation committee of 1918, of bulls issued to District Boards at Rs. 200 each is Rs. 400. If this amount had been charged for the receipts would have increased by Rs. 39,600.



