MADRAS RECORD OFFICE.

Government of Madras.

Revenue DEPARTMENT.

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Dated 18th June 1869	

Not to be folded or roughly handled

Proceedings of the Madras Government, Revenue Department,
18th June 1869.

No. 410. Read the following letter from the Honorary Secretary, Government Experimental Farm, to the Acting Secretary to Government, Revenue Department, Fort Saint George, dated Madras, May 1869:—

I AM directed by the Committee of the Government Experimental Farm at Sydapett to forward the Report for season 1868-69. Statements of receipts* and expenditure† are sent, showing a balance of Rupees 1,470-3-6.

* *Vide* Enclosure A.
† *Vide* Enclosure B.

2. EXTRA GRANT.—An extra grant of Rupees 2,000 was made on 9th February 1869 on account of heavy expenditure under the head of Seeds, Carts and Barrows, Implements, Fowls, and Extra Labor. Of this sum, however, Rs. 1,470-3-6 remained at the end of the year.

3. ENGINE-HOUSE.—The engine-shed (see paragraph 6, Report for 1867-68,) has been finished at a cost of Rupees 1,496-6-0. The large bucket-pump has been put up and been worked, but is not yet quite in proper trim, nor has the gearing been fitted for the other machinery.

4. IMPROVED BUCKET-PUMP.—Three pumps have been manufactured at the Mint, and three others are now being made: one for Ahmedabad; one for Nellore Municipality; and the third for Mr. Minchin at Aska Factory. A working-model has been sent to the Bombay Government; one to the Rajah of Jeypore; and two others are being made: one for the Roorkee Workshop, and another for the Chief Commissioner of Oude.

5. A piece of low lying ground, between the Farm buildings and the river, was this year taken from the renters by the Committee. Its area is ten or twelve acres; it has been got into working order, and some crops of ragi and cholum grown on it. The rains, as the Government are aware, totally failed. The Adyar river even, which has generally a small stream throughout the hot weather, was entirely dried up early in March, and the deep pool at the Farm Steading is now about eight feet below its usual level.

6. SUPERINTENDENT.—The Acting Superintendent, referred to in paragraph 4 of last year's Report, proved quite incapable of managing the Farm. The result of the correspondence with several leading Agriculturalists in England was, that the present Superintendent, Mr. W. R. Robertson, was most strongly recommended by his former employers (Lord Dufferin among others;) also by the Reverend J. Constable, Principal of the Royal Agricultural College, Mr. Mechi, Mr. Hall Dare, Secretary to the Royal Agricultural Society, and Mr. Morton, the Editor of the Farmers' Calendar, etc. He arrived on November 21, and took charge at once. Very shortly a great change became visible in the entire management: order reigned where before all was confusion and mismanagement, and as far as the Committee are able to judge, Mr. Robertson is exactly the man they wanted—"a highly "educated farmer, acquainted with agricultural chemistry and machinery, and "possessed of a thorough practical know-"ledge of all farming operations, the "management of cattle, sheep, etc."

Paragraph 4, Report for 1867-68.

7. Annexed I beg to forward the annual Report on the management of the Farm, written by the Superintendent, Mr. Robertson, in which only one or two very trifling alterations have been made by the Committee.

Annual Report on the management of the Farm for 1868-69.

BUILDINGS.—The house known as the Superintendent's Bungalow has been transferred to the Commissariat Department, and a new residence, near the Farm buildings, is being erected for the Superintendent. The fowl-house has been considerably altered. The internal walls have been removed and wire divisions substituted. This wire netting is very useful for making divisions: it allows a free passage for air. Good ventilation being established, the temperature is much lower than before the alterations were made. Earthen chatties have been adopted for nests; they are easily cleaned, and answer admirably.

2. SOILS.—The following analysis of some of the soils found on the Farm has recently been made :—

	No. 1. surface-soil.	No. 2. sub-soil.	No. 3. surface-soil paddy-fields.
Alumine...	4·42	2·060	6·50
Oxide of iron	1·80	2·900	3·20
Phosphate of lime...	·24	·009	·64
Carbonate of lime...	·70	·560	·46
Carbonate of magnesie	Trace.	Trace.	·20
Sulphate of lime...	Trace.	Trace.	Trace.
Chlorides..	1·08	·720	1·50
Moisture	2·76	1·420	3·06
Organic matter	2·50	1·740	3·80
Sand...	85·90	90·400	80·40
	99·40	99·809	99·76

3. No. 1 exhibits the analysis of an average sample of the soils under dry cultivation. The proportion of sand is great. If classed according to analysis, it would be termed a light soil. However, practically the soil is a heavy one, and is costly to work. This arises from the minute division in which the particles of sand are found. From their extreme fineness these particles, unless frequently stirred, form a compact mass almost impenetrable, excepting after rain. This analysis clearly shows why grain will seldom produce grain when cultivated on these soils. Leguminous plants require a considerable amount of carbonate and sulphate of lime to perfect their seeds. This soil is deficient in both these salts.

4. No. 2. An analysis of the sub-soil upon which No. 1 rests. While the larger per-centage of sand is favorable for irrigation, it causes a serious loss in the manurial matters applied: all soluble matters are washed down out of the reach of the roots of plants. Capillary attraction may bring some of these saline matters to the surface again, but there will always be a considerable loss. This analysis teaches that manure should be applied in small quantities at short intervals to these soils, and in not too soluble a condition. In other words, that a compound manure, like farm dung, will be of more value than a manure such as guano or superphosphate on these soils.

5. No. 3. An analysis of the soil in the experimental paddy-field. This analysis throws some light upon the want of success which has attended experimental paddy-culture on this soil. The large per-centage of alumine indicates that the soil is ill-suited for irrigation. This soil will expand considerably when wet, and contract very much when dry—conditions alike unsuited for growing plants. Though rich in plant-food, this soil is, from its physical condition, not suited for paddy-cultivation; it has therefore been largely mixed with sand, and will be planted with some other crop which will admit of frequent cultivation between the drills, and thus prevent alternate expansion and contraction.

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6. MANURES.—A considerable quantity of mud has been obtained from the bed of the river Adyar. This mud is rich in the organic and inorganic elements of plant-food; it is well suited for improving both chemically and physically our inferior sandy soils; it requires to be exposed for some time to atmospheric action before being applied as a manure. If it can be obtained at a reasonable price, an addition of about eight or ten per cent. of lime would greatly increase its manurial value.

7. Upwards of 100 tons of aquatic weed have also been collected off the river; these when mixed through the dry leaves, dung, shed and pig-stye drainage, etc., collected on the Farm, form a valuable manure.

8. A considerable quantity of oil-cake and other feeding materials has been consumed by the Farm stock: the manure made on the Farm is therefore of a superior quality. Care has been taken to store it, so that it may suffer the *least* injury from the escape of its fertilising ingredients. An arrangement has been made whereby the Farm will secure all the blood and other refuse matters from the Commissariat slaughter-house erected on the Farm. The fluid portions of this refuse will be either diluted and used as a top-dressing for grass, etc., or mixed along with the more solid portions and with soil made into a compost.

9. TREES AND FENCES.—A number of trees have been cut down, and a considerable length of useless fence removed, as it was found that crops grown under shade, or in close proximity to trees or fences, are always inferior; besides, these trees and useless fences afforded shelter for squirrels and other animals which prey on Farm-crops. In cutting down trees, care has been exercised only to remove those which *neither shade roads nor adorn the landscape.* A considerable number may yet profitably be removed, as not only do they interfere with agricultural operations, injure crops, harbour squirrels, etc., but they are *so crowded* together that they detract from, rather than embellish the appearance of the Farm.

10. CROPS.—Excepting a few acres of yellow cholum, the crops grown during the past year were complete failures. This must chiefly be attributed to the want of rain; still, had proper use been made of hand-hoes, bullock-hoes, and cultivators, the results would certainly have been of a more satisfactory nature. As is always the case when a crop is deficient, weeds grow in great profusion, these, instead of being cut down, were allowed to grow and mature their seeds. During the next season, no small item in the expenditure will be the cost of eradicating the weeds grown from these seeds.

11. HURRIALIE GRASS.—The field planted with hurrialie grass produced a very poor return of hay. Owing to the very low level to which the Adyar river has sunk, it has not been possible to irrigate the field for several weeks past. Hurrialie is evidently an aquatic grass, and requires frequent submersion. The Committee propose to plant this grass on a low flat near the river where water will only

26. A number of sheep have been fattened and killed on the Farm during the past few months. They were mostly Mysore wethers, varying in age from fifteen months to four years. These sheep were confined in sheds, and only allowed to graze during the day, after the dew was off the grass, on some waste land belonging the Farm. The artificial food was given to them in troughs twice a day. During these experiments, the average number of pounds of these artificial foods, obtained for one Rupee, was as follows :—

Gram 42 lbs., bran 48 lbs., cotton seed 50 lbs., and ground-nut oil-cake 60 lbs. Attendance, etc., is charged at the rate of Rupees 6 per month for forty-eight sheep. The manure is valued at one-fourth the cost of the artificial foods consumed. Unfortunately the sheep forming the different experimental lots were not well selected. In some of these lots there were sheep fifteen months old and forty-eight months old; of course, the younger sheep greatly reduced the average return of the lot.

27. One of these experimental lots was put up to feed on the 3rd of August; it contained eight wethers, averaging about 64 lbs per head live weight, worth Rupees 4 each. They were killed during November, when they averaged 75 lbs per head live weight. They consumed during the time of the experiment 444 lbs of gram, 222 lbs. of bran, and 338 lbs. of cotton seed, costing, with attendance, Rupees 26-12-0, or including the value of the sheep at the commencement of the experiment, Rupees 58. The mutton 271¼ lbs. was sold for Rupees 69-13-0, and the manure was valued at Rupees 5-7-0, making a total return of Rupees 75-0-0 showing a profit of Rupees 16-8-0. These sheep yielded 45 lbs of mutton, for every hundred pounds of live weight.

28. Another lot, consisting of twelve wethers, was put up to feed on the 15th August last, when they averaged 50 lbs live weight per head, and were valued at Rupees 3 each. They were killed during the latter part of January; their average live weight at the time being 61 lbs. per head. During the experiment they consumed 810 lbs. of gram, 435 lbs. of bran, and 548 lbs. of ground-nut oil-cake, costing, with attendance, price of sheep, etc., Rupees 81-12-0. The mutton, 312 lbs., realized Rupees 81-14-0, and the manure was valued at Rupees 9-5-0, showing a profit of Rupees 9-7-0. These sheep yielded 40 lbs. of mutton for each 100 lbs. of live weight.

29. A third lot, also consisting of twelve wethers, was put up for feeding on the 15th of August. They averaged 44 lbs. live weight each, and were valued at Rupees 2-8-0 each. They were killed during March, when their average live weight was 59 lbs. per head. They consumed during the continuation of the experiment 780 lbs. of cotton seed, 1,070 lbs. of gram, and 615 lbs. of bran, costing, with attendence, etc., Rupees 53-12-0, or inclusive of the value of the sheep at the commencement of the experiment, Rupees 83-12-0. After killing the sheep yielded 310 lbs. of mutton, which was sold for Rupess 79-9-0; the manure was valued at Rupees 11-1-0, making a total return of Rupees 90-10-0, leaving a *profit* of Rupees 6-14-0. This lot of sheep also averaged 40 lbs. of mutton for each 100 lbs. of live weight.

30. A fourth lot, consisting of eleven wethers, was put up to feed on the 15th August, when they weighed 514 lbs. live weight, and were valued at Rupees 2-8-0 each. On the 7th March they weighed 754 lbs. During the experiment they

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consumed 1,244 lbs. of gram, 816 lbs. of nut cake, and 612 lbs. of bran, costing, with attendance, and price of sheep, Rupees 91-1-0. At forty-five per cent. of their live weight, these sheep should yield 337 lbs. of mutton, worth Rupees 84; the manure is valued at Rupees 13-14-0, making a total return of Rupees 97-14-0, leaving a *profit* of Rupees 6-13-0.

31. A fifth lot, consisting of twelve wethers, was put up to fatten on the 16th September; they weighed 556 lbs. live weight. They were valued at Rupees 2-8-0. On the 7th March they weighed 698 lbs.; they consumed 1,032 lbs. of gram, 688 lbs. of cotton seed, and 516 lbs. of bran, costing, with attendance and price of sheep, Rupees 81-0-0; at fifty per cent. of their live weight, the return which all the sheep of this lot yet killed have given. These sheep will yield 345 lbs. of mutton, worth Rupees 86-4-0, with the value of the manure, Rupees 10-8-0, the total return is Rupees 96-12-0, leaving a *profit* of Rupees 15-12-0.

32. A sixth lot, consisting of twelve wethers, was put up to feed on the 16th September, when they weighed 560 lbs. They were valued at Rupees 2-8-0. On the 7th of March they weighed 792 lbs. live weight. During the experiment they consumed 1,032 lbs. of gram, 516 lbs. of bran, and 688 lbs. ground nut cake, costing, with attendance and price of sheep, Rupees 85-9-0 at forty-five per cent. of their live weight, the per-centage which all yet killed have yielded. These sheep will yield 356 lbs. of mutton, worth Rupees 89-0-0. The manure is valued at Rupees 11-10-0, making a total return of Rupees 100-10-0, a *profit* of Rupees 15-1-0.

33. The general results attending these experiments are shown in the following Statements :—

	Rs.	As.	P.			
Valuation of sheep, ...	185	0	0			
Food and attendance, ...	297	6	0			
	490	8	0	482	6	0
1,931 lbs. of mutton, ...	61	13	0			
Manure, ...				552	5	0

showing a balance of Rupees 69-15-0, from this must be deducted the value of two sheep, Rupees 10-0-0, which died during the period over which the experiments extended, leaving a *net* profit of Rupees 59-15-0.

34. Had the sheep been of more uniform age and quality, and had they been fed in the house with green food, there is no doubt but that still more satisfactory results would have been obtained. The average return of 45 lbs. of mutton in each 100 lbs. of live weight, is much below the return obtained from the most inferior breed of sheep in England; and the maximum weights obtained are only about equal to the average weight of a six months' old Leicester lamb. Before "high feeding" will yield a *fair* return, a better class of *feeding animal must be obtained;* and to this result, the distribution of good rams amongst the sheep breeding districts will greatly contribute.

Pigs.	
Boars, ...	2
Sows, ...	9
	11

35. During the year the old boar was very sick, and being, on recovery, useless for breeding purposes, was sold. two young boars have since been procured. This portion of the Farm stock continues healthy. Owing, however, to the unavoidable delay in obtaining a good

boar, none being in the market, there has been no increase in the stock during the past few months. Now that boars have been obtained, it is hoped that the stock will shortly be increased by a supply of farm-bred pigs.

36. Poultry.—The old stock of mixed poultry has been sold, and a new stock has been procured from Australia, consisting of Brahmapootras and Brahma Dorkings. Two breeds appear a valuable introduction: they lay well, and appear well suited to this climate.

37. Steam Engine.—The steam engine is now usefully employed in raising water by means of the large Bucket-pump recently erected. Driving, as slow as the present gearing will allow, twenty buckets are raised per minute, each bucket holds 210 lbs. of water, about 21 gallons. At this speed, 420 gallons a minute are raised. However, owing to the vent in the barrel being too small to allow of the buckets being so rapidily emptied into the drain, a considerable proportion of the water falls again into the well. The gearing will be altered to avoid this loss. Some experiments have been made to determine the quantity of wood burned to raise a given quantity of water. However, as the engine has only been worked for a short time, and as the gearing is not adapted to the water-lift, it is premature to form *any* conclusion.

38. The gearing required for the other machines in the shed is now being made at the Mint.

59. Chain Pumps.—Two chain pumps one driven by horse-power, and the other by manual-power, have been lately obtained from Australia. They were purchased by Mr. Fane, who saw them working very satisfactorily. Arrangements are being made for erecting the large one at the well in the field nearest to the Wudder-village.

40. Chaff Cutter and Universal Mill.—Ransome and Sims combined mill and chaff cutter has been temporarily placed in one of the cattle-sheds until the gearing is ready, which will connect it with the steam engine, when it will be placed in the engine-shed, It is now driven by bullocks, and does its work in a rapid manner, a little alteration is necessary to the gearing to admit of different lengths of chaff being cut which will be made.

41. Howard's Ploughs.—Two large wheeled ploughs made by Howard of Bedford were transferred from the Farm at Oossoor to this Farm. The ploughs have evidently been in use, but are in good condition; though they are both very large ploughs, they are found useful in ploughing light sandy land.

42. Norwegian Harrow or Clod Crusher.—A Norwegian harrow was also received from Oossoor; it is a large ponderous implement; its dead weight is 17½ cwt.; when working in deep soil, eight or ten oxen will be required to draw it. In England six horses are generally employed. It is proposed to take it to pieces, and to construct two lighter implements with the materials.

43. Corn sheller.—A cheap corn sheller was obtained in Australia. It does its work (separating the maize-grain from the cob) in a very satisfactory manner, and is well suited for agriculturists with small capital.

44. Norton's Pump.—The "Norton's Pump" at the buildings has not been of much value; a very small volume of water is raised at a great expenditure of manual labor. Rotary motion has been tried instead of the up and down motion

for raising the water. A crank was made at the Farm, and a spare wheel was appropriated. The result was so satisfactory that it has been determined to have a properly made crank, and to adopt the rotary motion. When a wheel is used a man can exert his full power; when the short handle, only the muscles of the arm are employed.

45. Improved Reaping or Grass Cutter's knife.—An improved knife has been constructed by the Superintendent, and has been in regular use for the past three months for cutting cholum, paddy, and grass. From direct experiments it has been found to save fifty per cent. in the cost of cutting these crops. It obtained the first prize at the Nellore Show. Several of the same pattern have been made and tested by persons unconnected with the Farm. One gentleman states that he saved two-thirds of the labor usually absorbed in cutting his grass by using this knife. It can be made by any village blacksmith.

46. Cultivators, etc.—Cultivators and scufflers have been largely employed during the past few months. They are invaluable on irrigated land in keeping down weed and rendering the soil open and porous.

47. Nellore Show.—The following implements belonging to the Farm obtained prizes at the Nellore Show:—

Cotton-gin, ...	1st prize
Cart, ...	"
Plough, ...	"
Improved Reaping knife, ...	"
Harrow, ...	"

48. Seeds.—The Khol Kale and Lupine seeds procured from England both utterly failed. Neither of them would grow at all. A further supply of them and some other seeds of grasses, etc., is daily expected.

49. Slaughter-house.—The slaughter-house has been finished, and a large supply of manure and offal is obtained from it.

50. Overseer.—The Overseer gives entire satisfaction. An addition has been made to his house.

51. Apprentices.—Wilkins and Young give great satisfaction: the former is well up in agricultural matters, and in time will make an excellent Farm Overseer. Young works the steam engine, and takes charge of all machinery; he understands his work, and performs it satisfactorily; he is improving in his knowledge of agricultural matters. It was found necessary to part with Conway; he made little progress in agricultural knowledge, and he was found deficient in the knowledge necessary to enable him to perform Blacksmith's work satisfactorily. Two additional Apprentices have been procured: one is a son of the Overseer. It is hoped that they can be trained to act as Farm Overseers after a few years' employment on the Farm.

52. Laborers.—An alteration has been made in the work-hours, which admits of a longer cessation from labor during the heat of the day, but leaves the actual labor-hours as before. The bullocks now only make two yokings a-day, instead of three. A great deal of time is saved, and they are less exposed to the heat of the sun. The coolies are numbered, this checks irregularities, and admits of a better supervision over them. Though they are very conservative in their ideas, little difficulty is experienced in getting them to work with new tools and implements. It is only necessary to show how to work them, to exercise a little *patience*, and to be firm.

A.

Abstract of the Receipts of the Government farm, during the year 1868-69.

	First quarter.	Second quarter.	Third quarter.	Fourth quarter.	Total.
	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
Balance in hand, 1st April 1868,	1,554 5 7	.....	.....	.....	1,554 5 7
Budget allowance,	3,000 0 0	2,000 0 0	2,000 0 0	1,000 0 0	8,000 0 0
Special sanction,	.....	.....	.....	2,000 0 0	2,000 0 0
Government allowance for wages,	691 8 0	636 0 0	636 0 0	1,236 0 0	3,199 8 0
Rent of land on the Farm,	.....	733 0 0	429 12 0	37 0 0	1,199 12 0
Quit-rent for houses do.,	.....	136 12 0	95 15 3	78 14 5	311 9 8
Rent of Mango trees,	200 0 0	112 8 0	112 8 0	101 7 0	526 7 0
English Cow and Calf, Sold.	100 0 0	.....	.....	.....	100 0 0
Pigs, do.	.....	193 15 3	115 2 9	30 0 0	339 2 0
Sheep, do.	12 4 0	70 0 0	275 8 6	228 1 3	585 13 9
Bullocks, do.	.....	.....	100 0 0	70 0 3	170 0 3
Fowls, do.	.....	7 0 0	.....	108 4 6	115 4 6
Eggs, do.	.....	.....	.....	14 15 6	14 15 6
Carolina Paddy, do.	.....	7 8 0	.....	.....	7 8 0
Ragi, do.	.....	.....	.....	67 0 0	67 0 0
Cumboo, do.	.....	.....	123 0 0	.....	123 0 0
Indian Corn, do.	.....	4 6 0	0 8 0	.....	4 14 0
Hay, Hurrialle, do.	.....	83 12 4	67 8 0	170 5 9	321 10 1
Guinea grass, do.	.....	4 9 0	11 9 0	7 12 0	23 14 0
Seeds, do.	.....	.....	35 0 0	.....	35 0 0
Oat Bruiser, do.	.....	.....	29 8 0	.....	29 8 0
For machines, do.	.....	34 14 8	.....	.....	34 14 8
Chaff cutters, do.	35 0 0	.....	.....	.....	35 0 0
Scythes and Wire Nettives, do.	.....	.....	149 4 0	32 0 0	181 4 0
Fire wood, do.	.....	31 7 11	.....	31 0 0	62 7 11
Mango trees, do.	24 0 0	.....	.....	348 0 0	372 0 0
Palmyrah do., do.	5 0 0	.....	.....	32 12 0	37 12 0
Vegetables, do.	10 9 8	.....	.....	.....	10 9 8
Bringal field,	15 0 0	.....	10 0 0	.....	25 0 0
Pressing Hay, etc..	.....	7 8 0	0 11 0	.....	8 3 0
Grazing and feeding Cattle on the Farm,	2 8 0	14 8 0	135 6 7	4 8 0	156 14 7
Fines, etc., on the Farm,	61 4 0	27 1 7	35 10 0	171 1 5	295 1 0
For the use of Farm Bull,	1 0 0	.....	1 8 0	2 0 0	4 8 0
Prizes at shows,	.....	.....	.....	312 0 0	312 0 0
Total ...	5,712 7 3	4,104 14 9 5,712 7 3 9,817 6 0	4,364 7 1 9,817 6 0 14,181 13 1	6,083 2 1 14,181 13 1 20,264 15 2	20,264 15 2

(Signed) H. BLAIR,
Honorary Secretary, Government Farm.

B.

Abstract of Expenditure of the Government Farm during the year 1868-69.

	First quarter.	Second quarter.	Third quarter.	Fourth quarter.	Total.	Grand Total.
	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
Pay of Establishment, ...	1,624 12 1	1,482 7 8	1,421 12 0	2,012 15 1	6,541 14 10	
Paid for Extra labour, ...	401 15 5	406 5 8	246 0 4	225 7 9	1,279 13 2	
Steam Engine shed, ...	740 15 5	275 9 8	241 2 0	238 10 11	1,496 6 0	
Farm buildings, ...	333 11 0	233 12 8	237 9 0	171 15 0	976 15 8	
Purchase of Live Stock ;	.....	415 4 0	34 8 0	866 7 0	1,346 3 0	
Do. Implements, ...	848 0 5	111 12 6	530 2 9	1,184 5 4	2,674 5 0	
Do. Carts and Barrows, ...	192 0 0	648 8 0	.....	.....	840 8 0	
Do. Seeds, ...	538 13 3	80 3 7	48 2 7	8 14 3	676 1 8	
Food for Live Stock, ...	391 5 5	714 7 8	374 4 2	1,010 2 5	2,490 3 8	
Manure, ...	48 4 4	24 0 0	.....	16 0 0	88 4 4	
Compensation to Ryot for Well, ...	.....	.....	.....	133 8 0	133 8 0	
Sundries, including Books and Stationery.	74 0 8	60 9 2	38 5 10	77 8 8	250 8 4	
Total ...	5,193 14 0	4,483 0 7 5,193 14 0	3,171 14 8	5,915 14 5		
		9,676 14 7	9,676 14 7	12,848 13 3	18,794 11 8	
			12,848 13 3	18,794 11 8	1,470 3 6	20,264 15 2
Cash Balance April 1st, 1869 ...	.....	.....	.....	.....		

(Signed) J. H. BLAIR,
Honorary Secretary, Government Farm.

List of the Machines, Implements and Tools, etc, belonging to the Farm.

1 Steam Portable Engine, 8 Horse-power.
1 Set of steam ploughing and cultivating apparatus, tackle, windlass, porters, etc.
1 Bone-mill.
1 Paddy huller.
1 Chaff-cutter and universal mill.
1 Threshing-machines, and Bullock-powers.
1 Reaping machine.
1 Drill sowing do.
1 Barrow broad cast sowing machine.
1 Portable do.
8 Cotton gins of various sizes and sorts.
2 Chaff cutters.
1 Small corn sheller.
1 Large do.
1 Root pulper.
1 Combined mill and cake crusher.
3 Winnowing machines.
2 Single wheel iron ploughs.
1 Large plough Ransome and Sims.
1 Double-mould board plough.
3 Dwarf wooden ploughs.
2 Wood swing ploughs.
2 Iron do. do.
1 Bullock hoe.
4 Grubbers.
2 Cultivators.
1 Bengal plough.
2 Sets of iron arrows.
2 Sets of chain do.
1 Norwegian do. or clod crusher.
2 Steaming apparatus.
1 Hay presser.
1 California pump.
3 Water elevators or lifts.
1 Large weighing machine.
1 Corn screen.
1 Large beam and scales.
1 Wind-mill and pumps.
1 Small beam and scales with weights.
1 Chain pump "manual"
1 do. do. and bullock-power.
21 Crow-bars.
45 Mamooties.
6 Mattocks.
2 Pair of sheep shears.
24 Picks.
13 Iron Rakes.
8 Forks of different sizes.
16 Reaping knives.
2 Large do.
2 Watering cans.
2 Tables.

5 Chairs.
1 Gun.
1 Clock.
1 Sack barrow.
1 Half mercal.
1 Mercal.
1 Measure.
1 Iron tank.
3 Sets of bullocks harness.
7 Plough yokes.
1 Norton tube well.
8 Scythes.
1 Archemedian pump.
1 Grind-stone.
3 Hedge knives.
7 Hoes.
Blacksmith forge and tools.
1 Ladder.
9 Hay rakes.
2 Sledge hammers.
1 Stone truck.
2 Cross cut saws.
3 Hand do.
2 Large field rakes.
3 Thorn pinchers.
2 Pairs prickers.
1 Sugar-cane mill.
1 Brace and set of bits.
5 Bill-hooks.
1 Ear-punch for marking sheep.
1 Branding.
11 Carts.
3 Water carts.
5 Iron troughs.
16 Wheel-barrows.
5 Plough ramuners.
45 Empty sacks.
5 Country ploughs.
2 Howard large 2 wheel ploughs.
2 Small cake crushers.
29 Scythe stones.
1 Writing desk.
14 Feeding troughs.
2 Hay rakes.
2 Carpenter's hammers.
2 Chisels.
8 Gimlets.
5 Augers.
5 Axes.
Sundry wheels, spare coulters, shares, mould, boards, etc. etc.

(Signed) J. H. BLAIR,
Honorary Secretary, Government Farm.

Proceedings of the Madras Government, Revenue Department,
18*th June* 1869.

List of the Machines, Implements and Tools, etc, belonging to the Far

1 Steam Portable Engine, 8 horse-power.
1 Set of steam ploughing and cultivating apparatus, tackle, windlass, porters, etc.
1 Bone-mill.
1 Paddy huller.
1 Chaff-cutter and universal mill.
2 Threshing-machines, and Bullock-power
1 Reaping machine.
1 Drill sowing do.
1 Barrow brood cast sowing machine.
1 Portable do.
8 Cotton gins of various sizes and sorts.
2 Chaff cutters.
1 Small corn sheller.
1 Large do.
1 Root pulper.
1 Combined mill and cake crusher.
3 Winnowing machines.
2 Single wheel iron ploughs.
1 Large plough Ransome and Sims.
1 Double-mould board plough.
3 Dwarf wooden ploughs.
2 Wood swing ploughs.
2 Iron do. do.
1 Bullock hoe.
4 Grubbers.
2 Cultivators.
1 Bengal plough.
2 Sets of iron arrows.
2 Sets of chain do.
1 Norwegian do. or clod crusher.
2 Steaming apparatus.
1 Hay presser.
1 California pump.
3 Water elevators or lifts.
1 Large weighing machine.
1 Corn screen.
1 Large beam and scales.
1 Wind-mill and pumps.
1 Small beam and scales with weights.
1 Chain pump "manual"
1 do. do. and bullock-power.
21 Crow-bars.
45 Mamootics.
6 Mattocks.
2 Pair of sheep shears.
24 Picks.
13 Iron Rakes.
8 Forks of different sizes.
16 Reaping knives.
2 Large do.
2 Watering cans.
2 Tables.

…n.
1 Clock.
1 Sack barrow.
1 Half mercal.
1 Mercal.
1 Measure.
1 Iron tank.
3 Sets of bullocks harness.
7 Plough yokes.
1 Norton tube well.
6 Scythes.
1 Archemedian pump.
1 Grind-stone.
3 Hedge knives.
7 Hoes.
Blacksmith forge and tools.
1 Ladder.
9 Hay rakes.
2 Sledge hammers.
1 Stone truck.
2 Cross cut saws.
3 Hand do.
2 Large field rakes.
3 Thorn pinchers.
2 Pairs prickers.
1 Sugar-cane mill.
1 Brace and set of bits.
5 Bill-hooks.
1 Ear-punch for marking sheep.
1 Branding.
11 Carts.
3 Water carts.
5 Iron troughs.
16 Wheel-barrows.
5 Plough ramuners.
45 Empty sacks.
5 Country ploughs.
2 Howard large 2 wheel ploughs.
2 Small cake crushers.
29 Scythe stones.
1 Writing desk.
14 Feeding troughs.
2 Hay rakes.
2 Carpenter's hammers.
2 Chisels.
8 Gimlets.
5 Augers.
5 Axes.
Sundry wheels, spare coulters, shares, mould, boards, etc. etc.

(Signed) J. H. BLAIR,
Honorarh Secretary, Government Farm.

Proceedings of the Madras Government, Revenue Department,
18th June 1869.

No. 411. ORDER THEREON, 18th June 1869, No. 1,734.

Miscellaneous.

THE Right Honorable the Governor in Council is glad to learn that the arrival of a really competent Superintendent has at last insured a fair trial being given to the experimental institution of a Government Farm.

2. It is to be regretted that the season, in the six months of the year under report, during which the Superintendent has been in charge, has been so very unfavorable for agricultural operations. The experiment of feeding stock for the market appears, however, to have been carefully and successfully conducted, and should be persevered in. Judging from paragraph 24 of the report, the breeding of sheep seems also to have been fairly successful.

3. The Committee have not submitted the Valuation List of the stock of the Farm called for in the Secretary of State's Despatch, under date 14th October 1868, No. 44, and they will be requested to supply this omission in order that it may be transmitted to England with their report.

(True Extract.)
(Signed) R. A. DALYELL,
Acting Secretary to Government.

To the Farm Committee.
,, the Board of Revenue.
,, the Agri-Horticultural Society.

Exd. E. C. Shunker.

for agricultural oper
Nos. The experiments
feed

Revenue 1069 Septr
A° 1771.

From
The Honorary Secy
to the Govt. Farm

Rec'd
Rec'd 26th May 1069
E-3-5

Forwarding Report
on the management of
the Farm for 1068/69

For 12 June 1868 Rs 3344-5-
- 29 Nov 1867. 635-5-
- 15 Jany 1868 - 344-5-

Refunded to Govt 30 Aug 69

C12 June/69 12-16

A.D.A. 1734 b/18 June/69
B-140

Revenue Department.

No. 1734.

PROCEEDINGS of the MADRAS GOVERNMENT.

18th June 1869.

Read the following Letter from the Honorary Secretary to the Government Farms

Forwarding Report on the management of the Farm for 1868/69. } H. E. 6 May 1869.

The Right Honorable the Governor in Council is glad to learn that the annual of a really competent Superintendent has at last ensured a fair trial being given to the experimental cultivation of a Government Farm.

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Seeds