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MADRAS RECORD OFFICE

GOVERNMENT OF MADRAS

Revenue DEPARTMENT

G.O. No.
B.P. No.

1683

Press
Mis.

Dated

24-11-1875 196

Not to be folded or roughly handled

Read the following papers:—

No. 270. Proceedings of the Board of Revenue, dated 25th August 1875,
No. 2,406:—

Read again Board's Proceedings, dated 20th April 1875, No. 969.

Read also the following papers:—

From W. R. ROBERTSON, Esq., M.R.A.C., Superintendent of Government Farms,
to H. E. STOKES, Esq., Acting Secretary to the Board of Revenue, dated
Sydapet, 7th July 1875, No. 347:—

I HAVE the honor to submit a detailed scheme in the form of a prospectus for establishing a School of Agriculture at Sydapet, with an estimate of cost for carrying on the work of the institution, in compliance with the request made in the Proceedings of the Board, No. 969, dated the 20th of April 1875.

2. The scheme, as outlined in the draft prospectus now submitted, complies generally with the conditions laid down in Government Order, No. 446, dated the 19th March 1875, except that it provides for the training to extend to three years instead of only two years, also provides for the whole twenty-four stipendiary studentships being filled up at the opening of the institution instead of twelve in the first year and twelve in the second year, and also it makes a provision for the establishment of scholarships—modifications which, I venture to hope, will meet with approval. My experience with the Sydapet Farm Apprentices convinces me that two years' training in the institution will be insufficient to qualify native youths in agriculture. If the twenty-four stipendiary students are appointed at the opening of the institution, the cost of their training will be much less than if half the number were appointed at the beginning of the first year and the remainder at the beginning of the second year, as in the former case *the whole would be taught together throughout the full course of training*, whereas in the latter case, as there would be two classes, one a year in advance of the other, two courses of lectures would have to be provided, causing an extra expenditure of something like Rupees 3,600 in the second year. The scholarships are, I think, necessary to induce the students, both stipendiary and private, to make full use of their opportunities.

3. I would strongly urge that the agricultural certificate should be made to possess a special value by it being made a qualification for employment in one or more departments of the public service.

4. The general rules and regulations adopted are very similar to those in operation at the Engineering and Medical Colleges.

5. The regulations regarding school-teachers are intended to meet the want that will be created on the new regulations for educational results grants coming into operation, and also to induce school-teachers to prepare youths in elementary agriculture for the entrance examination of the agricultural institution to be established.

6. In the estimates I now submit I have provided only for the working charges of the institution. The cost of furniture, &c., will be included in the estimates for providing the buildings required.

7. The estimated cost of each lecture includes carriage-hire for the lecturer.

8. Lecturers will be required for courses on chemistry, botany, and zoology in the first year. I had hoped that Mr. Broughton, the Government Quinologist, would have been able to take up the first of these subjects. If another chemist is to be appointed to the post recently filled by Mr. Broughton, I would venture to suggest that, in making the selection, preference should be given to a good agricultural chemist. We greatly need the aid of such a chemist, and he would be able, while engaged in agricultural investigations and in educational work in the institution, to do any analytical work required in connection with cinchona cultivation. But I do not anticipate that there will be any difficulty in obtaining the services of a lecturer for the course on chemistry. For the courses on botany and zoology, I think it probable that lecturers may be obtained from the Medical College staff or amongst the officers of the Forest Department.

9. The estimated cost of working the institution is—first year Rs. 12,625, second year Rupees 14,545, and third year Rupees 15,265, or an average during the three years of Rupees 14,145 per annum; but against this there will be a saving of Rupees 6,240 per annum, being the amount sanctioned for the salaries of Sydapet and District Farm Apprentices (*vide* G.O., No. 397, dated the 7th of April 1873, and G.O., No. 1,041, dated the 15th of June 1871).

ENCLOSURE No. 1.

PROSPECTUS OF THE GOVERNMENT SCHOOL OF AGRICULTURE, SYDAPET, MADRAS.

Objects.

The institution is designed to supply such instruction in the science and practice of agriculture as will be most useful to young men whose destined employment is to connect them with agriculture whether as owners, occupiers, or managers of estates, farms, or plantations, or as employés in the service of Government in the Agricultural Department.

United to other requisite educational attainments a knowledge of the subjects taught in the institution will add to a man's qualifications for employment in the Revenue, Educational, and other departments of the public service.

The Institution, Farms, &c.

The buildings needed will be erected on the Sydapet Experimental Farm on land situated in close proximity to the village of Sydapet, in which village students will readily obtain lodgings, board, &c., during their course of training. Sydapet is a village of some importance; it is situated about seven miles to the south of Fort Saint George, and it will, in a short time, be connected by rail with Madras and with the Southern Districts of the Presidency.

There are two Farms at Sydapet: an Experimental Farm, which measures 130 acres, and a Model Farm, the area of which is 120 acres. Both Farms are provided with suitable buildings.

The soils of both Farms are generally very poor, the result partly of the inferiority of the materials out of which they were originally formed and of the exhausting cultivation to which they, in common with most arable soils in Southern India, have long been subjected under native farming. The inferior quality of the soils is, however, an advantage when looked at from an educational point of view in the facilities thus afforded for exhibiting in a decisive way the benefits that spring from deep and thorough cultivation and from the liberal use of suitable manures.

At present neither Farm is well supplied with water for use in irrigation, but arrangements are now in operation which, when completed, will put an abundant supply of water always at the disposal of both Farms, when field-work will be continued throughout the year instead of as now being confined to four or five months in each year, and many important experiments will then be instituted which it has heretofore been impossible to conduct.

All branches of agriculture that can be practised on the plains of Southern India will receive attention on these Farms.

A botanical garden will shortly be established on the Experimental Farm, which, besides affording information regarding the various plants and trees suited for cultivation on the plains of Southern India, will be utilized for exhibiting the various methods of propagating plants by layers, budding, grafting, &c., and for experiments in pruning, &c.

In the workshops attached to the Experimental Farm all kinds of agricultural implements and tools suited for use in Southern India are manufactured and repaired.

On the Experimental Farm an agricultural library is now in the course of formation and a suitable room has been temporarily set aside as a reading room for the use of students; a veterinary hospital, a chemical laboratory, and an agricultural museum will also probably be provided.

Management, &c.

The institution will be attached to the Educational Department under the general control of the Director of Public Instruction acting in communication with the Board of Revenue. The direct management of the institution will be entrusted to the Superintendent of Government Farms, who will conduct all correspondence regarding the institution, will issue all notices, orders, &c., regarding the delivery of lectures and other matters connected with the routine of the institution and will maintain discipline amongst the students, who will, in all things, be subject to the orders he may issue.

Instruction, &c.

The course of instruction will extend over three years; there will be two sessions in each year—a summer session and a winter session; the summer session will begin each year on the 1st of April and will end on the 30th of June; the winter session will begin on the 1st of October and will end on the 31st of March. Though the actual work of the winter session will not begin until the 1st of October, students will be expected to assemble at Sydapet on the 1st of September in order that they may witness, and take part in, the important field operations conducted at that season in connection with the sowing of the cold-weather crops. The instruction will embrace a thorough study of agriculture and of such portions of chemistry, geology, zoology, botany, and the veterinary art as bear on the practice and theory of agriculture. In addition to these special subjects the following will also receive attention:—English, Farm book-keeping, land-surveying, mensuration, and drawing. The instruction on the special subjects will be given by gentlemen thoroughly acquainted with these subjects by means of lectures, class-room discussions, and field-classes aided by well-trained literary teachers, who, in addition, will also impart instruction in English, land-surveying, &c. Each of the lecturers of the institution will deliver two sessional courses of lectures annually.

During the portion of the day set apart for practical instruction in farming out-of-doors, every student will be expected to take part in whatever work is going forward. Compliance with this regulation will be strictly enforced, as no man can become a thoroughly-trained farmer until he has learnt by personal experience the management of live-stock, of machines and implements, of field labor, &c. Each student will be expected to be acquainted with all the operations daily performed on the Sydapet Farms, and will be expected to keep a journal or diary of the same.

Admission.

Europeans, Eurasians, and Natives of all classes are alike eligible for admission into the institution when vacancies exist on passing the entrance examination and complying with the other conditions prescribed as follow:—

Candidates must be between sixteen and twenty-one years of age, and must produce, with their application for admission, the following certificates:—

- (a.) Certificate of age.
- (b.) Do. of character.
- (c.) Do. of physical fitness.*

No fee of any kind will be charged, but every student admitted to the benefits of the institution will be expected on entrance to deposit with the Superintendent of Government Farms a sum of Rupees 20 as a fund out of which to pay fines which may be inflicted for inattention, misconduct, or other reasons. This deposit, or the portion of it that remains unforfeited, will be paid over to the student on his leaving the institution. Every student will be expected to provide himself with text-books, stationery, &c.

The entrance examination will be as follows:—

English.—Ability to write correctly and legibly from dictation, and express themselves with reasonable correctness and intelligence in a letter or in a report.

Arithmetic.—The first four simple and compound rules, vulgar and decimal fractions.

Vernacular.—Tamil or Telugu (in the case of Europeans and Eurasians only). Ability to translate into English easy sentences from an elementary vernacular prose work commonly used in schools.

History.—The leading facts of the histories of India and England.

Geography.—The outlines of geography generally and the geography of India in particular.

The date of this examination and of future entrance examinations will be duly notified in the *Fort Saint George Gazette*.

Stipendiary Studentships.

Of the candidates who pass most successfully and who are proved to belong to families of good social position interested in land as owners or cultivators, twenty-four will be selected to fill stipendiary studentships to be established by Government, to which will be attached a monthly salary of Rupees 15 in the first year, Rupees 17½ in the second year, and Rupees 20 in the third year under the following conditions:—

No stipend will be increased until the prescribed examinations have been satisfactorily passed. The stipend will be liable to be forfeited in part or in whole for continued disobedience to orders or neglect of duty, and no person who holds a stipendiary studentship will continue to hold it if found to be unfit to undergo further training from incapacity or want of interest. No stipend can be held for more than three years.

Scholarships.

Ten scholarships, each of the value of Rupees 10 per mensem and tenable for two years under certain conditions, will be given to the ten students who, at the end of the first year of training, secure the largest number of marks and who, in other respects, have given satisfaction. These scholarships are to be held under the same general conditions as will be applicable to stipendiary studentships.

Agricultural Certificate.

At the conclusion of the course of training, each student, who is found to possess the necessary knowledge and whose conduct has been satisfactory, will be entitled to a certificate certifying to his qualifications as an agriculturist.

* Should state that the candidate has been vaccinated.

School-teachers and others.

It is proposed, after the institution has been two years in existence, to make elementary agriculture one of the subjects of the entrance examination and to grant a fee of Rupees 25 to every school which succeeds in passing a student into the institution, provided the master or a teacher in that school has attended a course of instruction at the Government School of Agriculture; the fee to become the personal property of that master or teacher. Arrangements will be made under which young men who are studying in Madras to qualify themselves as school-teachers will be permitted to attend one or more courses of lectures and to undergo a partial training in practical agriculture at the institution. Arrangements will also be made to allow of persons attending one or more courses of lectures in the institution on the payment of a small fee.

General.

Students supported by other Governments, by native land-owners, or by private funds may be admitted under the same rules and regulations as stipendiary students, provided their stipends are paid regularly one month in advance to the Superintendent of Government Farms, by whom these stipends will be disbursed under the rules prescribed.

Curriculum of Study.

1st year.	2nd year.	3rd year.
Agriculture—Elementary.	Agriculture—Crops and Stock.	Agriculture.
Zoology.	Geology—Elementary.	Geology—Agricultural.
Chemistry—Inorganic.	Chemistry—Organic.	Chemistry—Agricultural.
Veterinary—Animal Physiology and Anatomy.	Veterinary—Therapeutics and Materia Medica.	Veterinary—Pathology.
Botany—Vegetable Physiology.	Botany—General.	Botany—Agricultural and Horticultural.
Drawing—Elementary.	Drawing—Plans.	Drawing—Machines, &c.
Land-surveying and Mensuration.	Land-surveying and Mensuration.	Mechanics—Farm Bookkeeping, &c.

TIME-TABLE.

First Session only.

Monday	...	6 to 7-30 A.M.—On the Farms—Practical Instruction in Agriculture.
	8 „ 9	„ —Lecture—Agriculture.
	2 „ 3	P.M.—Class-room Instruction—Language.
	3 „ 4	„ —Do. —Mensuration.
	4 „ 5	„ —Lecture—Zoology.
	5 „ 6	„ —Field Class—Agriculture.
Tuesday	...	6 „ 7-30 A.M.—On the Farms—Practical Instruction in Agriculture.
	8 „ 9	„ —Lecture—Veterinary.
	2 „ 3	„ —Class-room Instruction—Language.
	3 „ 4	„ —Do. —Drawing.
	4 „ 5	„ —Lecture—Botany.
	5 „ 6	„ —Field Class—Botany.
Wednesday	...	6 „ 7-30 „ —On the Farms—Practical Instruction in Agriculture.
	8 „ 9	„ —Lecture—Chemistry.
	2 „ 3	P.M.—Class-room Instruction—Language.
	3 „ 4	„ —Do. —Mensuration.
	4 „ 5	„ —Field Class—Land-surveying.
	5 „ 6	„ —Field Class—Land-surveying.

Proceedings of the Madras Government, Revenue Department,
24th November 1875.

Thursday	6 to 7-30 A.M.	On the Farms—Practical Instruction in Agriculture.
8, 9		—Lecture—Agriculture.
2, 3	P.M.	Class-room Instruction—Language.
3, 4		Do. —Drawing.
4, 5		—Lecture—Veterinary.
5, 6		—Field Class—Veterinary.
Friday	6, 7-30 A.M.	On the Farms—Practical Instruction in Agriculture.
8, 9		—Lecture—Botany.
2, 3		—Class-room Instruction—Language.
3, 4		Do. —Mensuration.
4, 5		—Lecture—Chemistry.
5, 6		—Laboratory Class.
Saturday	6, 7-30 A.M.	On the Farms—Practical Instruction in Agriculture.
8, 9		—Weekly Examination—Each subject of lectures in rotation.

SyDAPET,
7th July 1875.

(Signed) W. R. ROBERTSON,
Superintendent of Government Farms.

ENCLOSURE No. 2.

Estimate of Expenditure on account of the Government School of Agriculture for the
three years ending 31st of March 1879.

FIRST YEAR.

24 Stipendiary Students at Rupees 15 per mensem for 12 months	Rs.	A.	P.
1 Head Master at Rupees 150 per mensem for 12 months	4,320	0	0
1 Assistant Master at Rupees 75 per mensem for 12 months	1,800	0	0
1 Clerk on Rupees 25 per mensem	900	0	0
	300	0	0

LECTURES.

Agriculture, 78 Lectures			
Veterinary, 78 do.			
Chemistry, 78 do. at Rupees 20, (a) each	1,560	0	0
Botany, 78 do. at „ 20, (b) each	1,560	0	0
Zoology, 39 do. at „ 15, (c) each	585	0	0
Peons and Attendants	400	0	0
Books, Stationery, &c.	500	0	0
Contingencies	1,000	0	0

Total for 1st year... 12,925 0 0

SECOND YEAR.

24 Stipendiary Students at Rupees 17½ per mensem for 12 months	5,040	0	0
10 Scholarships at Rupees 10 per mensem for 12 months	1,200	0	0
1 Head Master at Rupees 150 per mensem for 12 months	1,800	0	0
1 Assistant Master at Rupees 75 per mensem for 12 months	900	0	0
1 Clerk on Rupees 30 per mensem	360	0	0

LECTURES.

Agriculture, 78 Lectures			
Veterinary, 78 do.			
Chemistry, 78 do. at Rupees 20, (a) each	1,560	0	0
Botany, 78 do. at „ 20, (b) each	1,560	0	0
Geology, 39 do. at „ 15, (c) each	585	0	0
Peons and Attendants	400	0	0
Books, Stationery, &c.	500	0	0
Contingencies	1,000	0	0

Total for 2nd year... 14,905 0 0

Proceedings of the Madras Government, Revenue Department,
24th November 1875.

THIRD YEAR.

24 Stipendiary Students at Rupees 20 per mensem for 12 months	5,760	0	0
10 Scholarships at Rupees 10 per mensem for 12 months	1,200	0	0
1 Head Master at Rupees 150 per mensem for 12 months	1,800	0	0
1 Assistant Master at Rupees 75 per mensem for 12 months	900	0	0
1 Clerk on Rupees 35 per mensem	420	0	0

LECTURES.

Agriculture, 78 Lectures			
Veterinary, 78 do.			
Chemistry, 78 do. at Rupees 20 (a) each	1,560	0	0
Botany, 78 do. at „ 20 (b) each	1,560	0	0
Geology, 39 do. at „ 15 (c) each	585	0	0
Peons and Attendants	400	0	0
Books, Stationery, &c.	500	0	0
Contingencies	1,000	0	0

Total for 3rd year... 15,685 0 0

(a) Includes Laboratory Classes and Examinations.

(b) Do. Field Classes and Examinations.

(c) Do. Examinations.

ABSTRACT.

	RS.	A.	P.
First year	12,625	0	0
Second year	14,545	0	0
Third year	15,265	0	0
Total	42,435	0	0
Average per annum	14,145	0	0

SyDAPET,
7th July 1875.

(Signed) W. R. ROBERTSON,
Superintendent, Government Farms.

From W. R. ROBERTSON, Esq., M. R. A. C., Superintendent of Government
Farms, to H. E. STOKES, Esq., Acting Secretary to the Board of Revenue,
dated Sydapet, 8th July 1875, No. 349.

I HAVE the honor to request that the charges shown in the accompanying
statement may be entered in the estimates of expenditure forwarded to the Board
with my letter, No. 347, dated the 7th of July 1875, a provision for the salary of a
clerk having, by an oversight, been omitted in these estimates.

ENCLOSURE No. 1.

STATEMENT.

First year.

1 Clerk at Rupees 25 per mensem for twelve months	Rs.	A.	P.
	300	0	0

Second year.

1 Clerk at Rupees 30 per mensem for twelve months	360	0	0
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Third year.

1 Clerk at Rupees 35 per mensem for twelve months	420	0	0
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SyDAPET,
8th July 1875.

(Signed) W. R. ROBERTSON,
Superintendent, Government Farms.

As directed in the Proceedings quoted above, the Superintendent of Government Farms submits a detailed scheme for establishing a School of Agriculture at Sydapet with an estimate of the cost. The Board approve generally Mr. Robertson's proposals which, except in one or two particulars, conform to the outline sketched for his guidance. The three principal points of difference are—

- (1.) The extension of the course of training to three years.
- (2.) Provision for filling up the whole number of stipendiary studentships in the first year.
- (3.) Provision for the establishment of scholarships.

2. As regards the period of training, the Board concur with Mr. Robertson in thinking that the course should extend over three years, but they do not think it at all desirable that the whole number of stipendiary studentships should be filled up at the outset; it is decidedly preferable to admit but twelve in the first year, a similar number in the second, and, if the experience acquired by that time justifies it, a third election might take place making the ultimate limit thirty-six. The number of students, stipendiary and private in each year's class, should not exceed thirty. A succession of classes has various advantages; amongst others it gives opportunity to students not able to keep up with the ordinary course to fall back on a junior class instead of continuing a hindrance to the more advanced, but perhaps the strongest objection to Mr. Robertson's proposal is that he would be equally precluded from admitting private students until the completion of the three years' course; vacancies by withdrawal, dismissal or any other cause could not be filled up, and the necessity for a junior or elementary class would be very soon apparent.

3. The ground of Mr. Robertson's recommendation is simply economy in the matter of lectures; the admission of a junior class in the second and third years will necessitate the delivery of separate courses of lectures for each class; thereby doubling the expense under this head in the second year, and trebling it in the third, if all the lectures, as proposed by Mr. Robertson, are delivered to each set of students. The Board are of opinion, however, that any increase of cost resulting from the entertainment of successive classes is absolutely necessary expenditure, and that economy must be practised in other directions. Moreover, considerations of economy apart, the number of lectures for which provision is made appears unnecessarily large, *viz.*, nine lectures a week throughout the session. Probably one lecture a day five days in the week will be as much as the students can master, and the expense would be reduced thereby nearly one-half in the first year. That the subjects will be new and the language a foreign one to the students must always be kept in mind, and it is most essential that all they do learn they should learn well. No explanation is afforded of the reason why a higher rate of remuneration is to be given for lectures on Chemistry and Botany than for lectures on Geology. The Surgeon-General, Indian Medical Department, will be requested to inform the Board whether lecturers on these subjects can be provided from the staff of the Medical College, and to state the rate of remuneration which should be given.

4. On the third point, *viz.*, the provision of scholarships, the Board concur in thinking the proposal a good one, but the number provided for in the estimate is out of proportion to the number of students, many of whom will be already in receipt of stipends. Two or three scholarships of Rupees 10 per mensem for the best students of each year will probably be sufficient to excite emulation.

5. Considering the novelty of the undertaking, the Board support Mr. Robertson's recommendation that fees should not be charged at the outset at any rate, and his suggestion that a deposit of Rupees 20 should be required on entrance, as a security for good behaviour, also commends itself to the Board. The demand is not likely to deter any applicant otherwise suitable, from admission to the classes, and it partly meets arguments that may be urged with considerable force against purely gratuitous instruction.

6. The stipendiary rates appear liberal, but not excessive, considering that the object in view is to attract representatives from the better classes to study, master, and disseminate principles of scientific agriculture.

7. The teaching staff appears adequate; experience will show whether further assistance will be required in the third year when there will be three classes. It should be one of the most important duties of the head-master and his assistant to explain the instruction given at the lectures and field classes, and to see that it is thoroughly apprehended by the students, to the mass of whom it will be conveyed in a foreign language. The masters as well as the students will have everything to learn, and it is essential that they should be required to attend both lectures and field classes as pointed out at paragraph 5 of the Board's Proceedings, dated 20th April 1875, No. 969. This point has not been noticed in the Prospectus.

8. The Board would extend the age of admission to twenty-four years, and would not be overstrict in applying the rule should a relaxation thereof in any particular case appear desirable. Whilst desirous of making admittance as easy as possible for members of the agricultural classes, the Board consider that a fair knowledge of English must be insisted on at the entrance examination; it will be indispensable to enable students to derive the full benefit from the lectures which will be delivered in that language.

9. Mr. Robertson suggests in paragraph 3 of his letter that the agricultural certificate should be made to possess a special value by its being made a qualification for employment in one or more departments of the public service. The Board object to this proposal altogether. If a demand for agricultural knowledge exists, the offer of stipends to a large number of students is quite sufficient to attract them; but if it be proclaimed that the Government will not only pay their students but provide them with appointments afterwards, there will be no lack of applicants, but not the smallest assurance that there is any real demand for the knowledge Government offer to impart, or that it will be used in improving the agriculture of the country.

10. The expedient of offering a reward to schoolmasters for each student passed into the institution may be tried, but a much longer period than two years must probably elapse before elementary agriculture can be made one of the subjects for the entrance examination, and the amount proposed is scarcely sufficient to induce teachers to undergo the required preliminary course of instruction.

11. Mr. Robertson's estimate of the cost of working the institution is as follows:—

	RS.
First year... ..	12,925
Second year	14,095
Third year	15,685

This includes a clerk with reference to his second letter read above.

If the Board's suggestions are approved, the outlay in the first year will be reduced, whilst in the third year it will be increased; the exact amount will depend on the number of lectures to be delivered and the remuneration to be paid for them and on the number of scholarships to be assigned.

In the first year a saving of Rupees 2,160 will be effected by limiting the number of stipendiary students to twelve, and if the number of lectures is reduced as suggested, a sum of Rupees 2,000 will probably suffice for that purpose, a further saving of Rupees 1,700 being the result.

In the second year, there will be twelve stipendiary students on Rupees 15 and a similar number on Rupees 17½, total Rupees 4,680, or Rupees 360 less than the estimate. If the number of scholarships is limited to three, there will be a further saving of Rupees 840. As courses of lectures will have to be provided for each class, there will be no saving in this direction, but the amount provided in the estimate will probably suffice.

In the third year, there will be three classes of twelve students each on Rupees 15, 17½, and 20, respectively, total charge Rupees 7,560, or an increase of Rupees 1,800 over the estimate. The charge for scholarships at three each for the classes of the two previous years will be Rupees 720 or Rupees 480 less than the estimate.

The number of lectures will have to be increased entailing a further expenditure of possibly Rupees 1,500, and perhaps an additional master on Rupees 50 per mensem may be required.

The total increase may be set down roughly at Rupees 3,500.

Thus the expenditure for the three years on the Board's plan will not exceed Mr. Robertson's estimate for the same period. The Board consider the proposed expenditure reasonable; if the undertaking succeeds at all, it will be well worth the outlay, and the trial to be a fair one must be conducted on a liberal scale.

12. There remains the difficulty about accommodation. Government have sanctioned the preparation of plans and estimates by the Public Works Department, but the Board fear that a considerable time must elapse before any portion of the permanent buildings can be got ready for occupation, and that unless a temporary thatched pandal sufficiently spacious for a lecture-room and two class-rooms, which might be erected for an inconsiderable sum, can be provided for temporary use, the introduction of the scheme will have to be postponed for an indefinite period. When the feasibility of commencing operations in such a structure was discussed with Mr. Robertson, it was objected that a thatched pandal would not be sufficiently substantial to withstand the monsoon, and that the heat would be insufferable in the hot weather. If these difficulties cannot be overcome, the only course open is to provide the requisite funds and push on the construction of the permanent buildings as rapidly as possible so as to com-

mence with a winter session in October 1876, if a sufficient portion of the building can be completed in time.

13. With these remarks the Board resolve to submit the scheme for the orders of Government through the Director of Public Instruction, whose practical experience will no doubt enable him to suggest desirable modifications which have not occurred to the Board.

(True Copies and Extract.)

(Signed) C. A. GALTON,
Acting Sub-Secretary.

No. 271. From E. THOMPSON, Esq., M.A., Acting Director of Public Instruction, to the Acting Secretary to Government, Revenue Department, dated Madras, 17th September 1875, No. 2,160.

I HAVE the honor to forward, for the consideration of Government, Proceedings of the Revenue Board, dated the 25th August last, No. 2,406, about the establishment of a School of Agriculture at Sydapet.

2. As I have no knowledge of agriculture, either English or Indian, I presume that the "practical experience" alluded to by the Board in the last paragraph was understood by them to refer only to my being conversant with general and not technical education, and it is, therefore, to general considerations that I shall confine myself in the few remarks that I have to offer on this subject.

3. I propose first to notice Mr. Robertson's recommendations and afterwards to comment very briefly on the review of those recommendations by the Board of Revenue.

4. In the first place, I believe that, for many years to come, it will be necessary to have a three-year course, or, in other words, to maintain an elementary class. If I rightly apprehend Mr. Robertson's remarks on making elementary agriculture one of the subjects for the Entrance Examination, he seems to contemplate the possibility at no distant date of having so much preparatory training done before the students come to the school, that their course there may be shortened. If this view is correct, I do not share his belief.

5. The Entrance Examination appears to be of much the same standard as that prescribed for the Uncovenanted Civil Service. To save, as far as possible, additional examinations which are troublesome, if not expensive, I would suggest that those who have passed the Uncovenanted Civil Service Examination should be accepted without further test, and *a fortiori* those who have Matriculated at the University. If a sufficient number of such men do not present themselves, an examination will then be necessary, and might be conducted by the Masters attached to the School of Agriculture under the general management of Mr. Robertson.

6. The rates of stipend appear reasonable, but I agree with the Board, and for the reasons stated by them, in thinking that only twelve stipendiary studentships should be offered at one time.

7. With the exception of what is proposed in the last sentence, the recommendations made in the paragraph headed "school teachers and others" appear to me unlikely to work. I do not think that the fee proposed by Mr. Robertson would have any definite result, and as to those "who are studying in Madras to qualify themselves as school-teachers," I think that very few would be either able or willing to go through the course suggested. Young men studying at schools in Town would not be able to spend all their mornings at Sydapet.

8. The time-table, as a whole, appears to me most reasonable, but I would suggest one or two modifications. I believe the afternoon hours are too long: my experience at the Presidency College goes to show that the boys get very sleepy in the third hour of class-work in the afternoon, and we have in consequence, as far as possible, dispensed with it. I would add an hour to the morning work, and have a longer interval between the return from field-work and the commencement of the Lecture. This would allow time for light refreshment, which could hardly be got before six o'clock in the morning. I would alter the hours thus:—

Monday.....	6 to 7-30 A. M.	On the Farms.
	9 to 10	" Lecture—Agriculture.
	10 to 11	" Class-room—Language.
	3 to 4 P. M.	Do. Mensuration.
	4 to 5	" Lecture—Zoology.
	5 to 6	" Field-class—Agriculture.

and similarly for the other days. Of course, if the Board's suggestion be adopted of having only one Lecture a-day, no further alteration of the time-table will be required; but I think it probable that Mr. Robertson will consider that all the subjects of the proposed course cannot be properly put before the students, unless at least nine Lectures a-week are delivered. I observe that only one hour (Friday, 5 to 6 P.M.,) is given to work in the Laboratory. This appears to me insufficient, for it takes some time for students to get out their apparatus, and make everything ready for their experiments, and if only one hour is allowed they will hardly have any time for real work. It would, I think, be better to give two or three consecutive hours to Laboratory work on alternate Saturdays, on which days, according to Mr. Robertson's scheme, there is nothing to be done after 9 o'clock. One of the Masters should be present to see that order is maintained and real work done.

9. I entirely agree with the Board in thinking that Mr. Robertson has proposed an unnecessary number of scholarships. Three every year would be ample. I do not myself see why private students should not be required to pay a fee. Poor but well-qualified students will be amply provided for by the twelve stipendiary studentships: a moderate fee would not deter those who have good means, and a desire to study agriculture; and it is very desirable to maintain the principle of paying fees. The suggestion about caution-money to the extent of Rs. 20 seems to me a very good one.

10. The functions assigned to the Masters in paragraph 7 of their Proceedings appear to me to be of very great importance. If the scheme becomes popular and attracts young men of good previous general education, the teaching of English and explanation of the Lectures by the Masters may not in time be so necessary, but if the Entrance Examination is to be pitched low so as not to deter applicants, youths of very moderate literary acquirements will be able to enter, and for them such assistance will be absolutely essential. I am afraid there will be some difficulty in getting the right sort of Masters: one at least should be a thoroughly good English scholar and a man of mature years, and the other should be well acquainted with practical Mathematics and accounts; but if they are intelligently to carry out the Board's suggestion that they should act as interpreters in some sort between the Professors and the students they must also be men of considerable general information and quick observation.

11. I am not in favor of laying down any rule about age. Any one not obviously too old to learn might be admitted as a private student, and even for stipendiary students I would go at least as far as the Board, *i.e.*, fix twenty-four as the maximum, and in the case of a decidedly fit candidate not be too particular even about that. Besides, these age restrictions are constantly evaded, and only tempt to falsehood or forgery of horoscopes.

12. The cost of the proposed school may be roughly set down at Rs. 15,000, but this, it will be observed, is exclusive of any portion of the salaries of Mr. Robertson and his Assistants. Still the benefit to be derived from the scheme, if successful, will be very great, and therefore the cost does not appear to be excessive even if we regard the school in the light of an experiment.

No. 272.

ORDER THEREON, 24th November 1875, No. 1,683.

Miscellaneous.

THE Government concur with the Board of Revenue in their general approval of Mr. Robertson's scheme for establishing

a School of Agriculture in connection with the Government Farms.

2. The main points on which the Board differ from Mr. Robertson are as to the number of stipendiary students, the number of scholarships, and the age of admission. With reference to the first point, the Board urge the advantages attendant on having a succession of classes, and the Acting Director of Public Instruction supports their views, and states that he believes it will be necessary to maintain an elementary class.

His Excellency the Governor in Council also inclines to this belief, but he sees no reason to restrict the number of stipendiary students to be admitted the first year below twenty-four, provided there are ample funds.

3. In the matter of the number of scholarships, His Excellency agrees with the Board, but while, perhaps, it may be necessary to limit the age of admission to twenty-four in the case of the stipendiary student His Excellency would not prescribe any limit in the case of private students, and provision should certainly be made for their admission, a moderate fee being charged.

4. The attention of the Board of Revenue will be called to the remarks of the Acting Director of Public Instruction as to the hours of study, the number of Lectures, and the advisability of extending the time allowed for work in the Laboratory.

5. The General or Matriculation test should, as suggested by Mr. Thompson, be held to suffice for admission in the case of candidates who have passed either test, but it is probable that a special entrance examination will also be required. Mr. Robertson's proposal as to an Agricultural Certificate being held to be a special qualification for employment in one or more departments of the public service is inadmissible.

6. The Board will at once call upon Mr. Robertson for his opinion as to the best means of providing temporary class-rooms, &c., and arrange for the preparation of plans and estimates for the necessary permanent accommodation; economy of construction being insisted upon.

(True Extract.)

(Signed) D. F. CARMICHAEL,
Secretary to Government.

To the Board of Revenue.

„ the Director of Public Instruction.

„ the Educational Department.

Ed. F. R. Bantleman.

25.9.5402

Further to letter of 1/5
 40th Oct 1875
 Further to letter of 25/6/76
 G.O. 14th July 1876

G.O. 1683 Rev

24.11.1875

School of Agriculture at Sydapet.—Con-
 currence with the Board of Revenue in their
 general approval of Mr. Robertson's scheme for
 establishing a — in connection with the Govern-
 ment Farms, and requesting them to call on
 Mr. Robertson to report on the provision of
 temporary classrooms and for the preparation of
 plans and estimates for the necessary permanent
 accommodation.

NOVEMBER.
 Nos. 270—272.

Dated November, 24th.
 G. O. 24th November 1875, No. 1683.

GOVT. OF 1875
 REVENUE.
 THE BOARD OF REVENUE.

No. 2,406.

PROCEEDINGS OF THE BOARD OF REVENUE, dated 25th August 1875.

Read again Board's Proceedings, dated 20th April 1875, No. 969.

Read also the following papers:—

From W. R. ROBERTSON, Esq., M.R.A.C., Superintendent of Government Farms,
 to H. E. STOKES, Esq., Acting Secretary to the Board of Revenue, dated
 Sydapet, 7th July 1875, No. 347:—

I HAVE the honor to submit a detailed scheme in the form of a prospectus for
 establishing a School of Agriculture at Sydapet, with an estimate of cost for
 carrying on the work of the institution, in compliance with the request made in
 the Proceedings of the Board, No. 969, dated the 20th of April 1875.

2. The scheme, as outlined in the draft prospectus now submitted, complies
 generally with the conditions laid down in Government Order, No. 446, dated
 the 19th March 1875, except that it provides for the training to extend to three
 years instead of only two years, also provides for the whole twenty-four stipendiary
 studentships being filled up at the opening of the institution instead of twelve in the
 first year and twelve in the second year, and also it makes a provision for the estab-
 lishment of scholarships—modifications which, I venture to hope, will meet with
 approval. My experience with the Sydapet Farm Apprentices convinces me that
 two years' training in the institution will be insufficient to qualify native youths
 in agriculture. If the twenty-four stipendiary students are appointed at the opening
 of the institution, the cost of their training will be much less than if half the
 number were appointed at the beginning of the first year and the remainder at
 the beginning of the second year, as in the former case *the whole would be taught
 together throughout the full course of training*, whereas in the latter case, as there
 would be two classes, one a year in advance of the other, two courses of lectures
 would have to be provided, causing an extra expenditure of something like
 Rupees 3,600 in the second year. The scholarships are, I think, necessary to
 induce the students, both stipendiary and private, to make full use of their oppor-
 tunities.

3. I would strongly urge that the agricultural certificate should be made
 to possess a special value by it being made a qualification for employment in
 one or more departments of the public service.

4. The general rules and regulations adopted are very similar to those in
 operation at the Engineering and Medical Colleges.

5. The regulations regarding school-teachers are intended to meet the
 want that will be created on the new regulations for educational results grants
 coming into operation, and also to induce school-teachers to prepare youths in
 elementary agriculture for the entrance examination of the agricultural institu-
 tion to be established.

6. In the estimates I now submit I have provided only for the working
 charges of the institution. The cost of furniture, &c., will be included in the
 estimates for providing the buildings required.

7. The estimated cost of each lecture includes carriage-hire for the lecturer.

8. Lecturers will be required for courses on chemistry, botany, and zoology in the first year. I had hoped that Mr. Broughton, the Government Quinologist, would have been able to take up the first of these subjects. If another chemist is to be appointed to the post recently filled by Mr. Broughton, I would venture to suggest that, in making the selection, preference should be given to a good agricultural chemist. We greatly need the aid of such a chemist, and he would be able, while engaged in agricultural investigations and in educational work in the institution, to do any analytical work required in connection with cinchona cultivation. But I do not anticipate that there will be any difficulty in obtaining the services of a lecturer for the course on chemistry. For the courses on botany and zoology, I think it probable that lecturers may be obtained from the Medical College staff or amongst the officers of the Forest Department.

9. The estimated cost of working the institution is—first year Rs. 12,625, second year Rupees 14,545, and third year Rupees 15,265, or an average during the three years of Rupees 14,145 per annum; but against this there will be a saving of Rupees 6,240 per annum, being the amount sanctioned for the salaries of Sydapet and District Farm Apprentices (*vide* G.O., No. 397, dated the 7th of April 1873, and G.O., No. 1,041, dated the 15th of June 1871).

ENCLOSURE No. 1.

PROSPECTUS OF THE GOVERNMENT SCHOOL OF AGRICULTURE, SYDAPET, MADRAS.

Objects.

The institution is designed to supply such instruction in the science and practice of agriculture as will be most useful to young men whose destined employment is to connect them with agriculture whether as owners, occupiers, or managers of estates, farms, or plantations, or as employés in the service of Government in the Agricultural Department.

United to other requisite educational attainments a knowledge of the subjects taught in the institution will add to a man's qualifications for employment in the Revenue, Educational, and other departments of the public service.

The Institution, Farms, &c.

The buildings needed will be erected on the Sydapet Experimental Farm on land situated in close proximity to the village of Sydapet, in which village students will readily obtain lodgings, board, &c., during their course of training. Sydapet is a village of some importance; it is situated about seven miles to the south of Fort Saint George, and it will, in a short time, be connected by rail with Madras and with the Southern Districts of the Presidency.

There are two Farms at Sydapet: an Experimental Farm, which measures 130 acres, and a Model Farm, the area of which is 120 acres. Both Farms are provided with suitable buildings.

The soils of both Farms are generally very poor, the result partly of the inferiority of the materials out of which they were originally formed and of the exhausting cultivation to which they, in common with most arable soils in Southern India, have long been subjected under native farming. The inferior quality of the soils is, however, an advantage when looked at from an educational point of view in the facilities thus afforded for exhibiting in a decisive way the benefits that spring from deep and thorough cultivation and from the liberal use of suitable manures.

At present neither Farm is well supplied with water for use in irrigation, but arrangements are now in operation which, when completed, will put an abundant supply of water always at the disposal of both Farms, when field-work will be continued throughout the year instead of as now being confined to four or five months in each year, and many important experiments will then be instituted which it has heretofore been impossible to conduct.

All branches of agriculture that can be practised on the plains of Southern India will receive attention on these Farms.

A botanical garden will shortly be established on the Experimental Farm, which, besides affording information regarding the various plants and trees suited for cultivation on the plains of Southern India, will be utilized for exhibiting the various methods of propagating plants by layers, budding, grafting, &c., and for experiments in pruning, &c.

In the workshops attached to the Experimental Farm all kinds of agricultural implements and tools suited for use in Southern India are manufactured and repaired.

On the Experimental Farm an agricultural library is now in the course of formation and a suitable room has been temporarily set aside as a reading room for the use of students; a veterinary hospital, a chemical laboratory, and an agricultural museum will also probably be provided.

Management, &c.

The institution will be attached to the Educational Department under the general control of the Director of Public Instruction acting in communication with the Board of Revenue. The direct management of the institution will be entrusted to the Superintendent of Government Farms, who will conduct all correspondence regarding the institution, will issue all notices, orders, &c., regarding the delivery of lectures and other matters connected with the routine of the institution and will maintain discipline amongst the students, who will, in all things, be subject to the orders he may issue.

Instruction, &c.

The course of instruction will extend over three years; there will be two sessions in each year—a summer session and a winter session; the summer session will begin each year on the 1st of April and will end on the 30th of June; the winter session will begin on the 1st of October and will end on the 31st of March. Though the actual work of the winter session will not begin until the 1st of October, students will be expected to assemble at Sydapet on the 1st of September in order that they may witness, and take part in, the important field operations conducted at that season in connection with the sowing of the cold-weather crops. The instruction will embrace a thorough study of agriculture and of such portions of chemistry, geology, zoology, botany, and the veterinary art as bear on the practice and theory of agriculture. In addition to these special subjects the following will also receive attention:—English, Farm book-keeping, land-surveying, mensuration, and drawing. The instruction on the special subjects will be given by gentlemen thoroughly acquainted with these subjects by means of lectures, class-room discussions, and field-classes aided by well-trained literary teachers, who, in addition, will also impart instruction in English, land-surveying, &c. Each of the lecturers of the institution will deliver two sessional courses of lectures annually.

During the portion of the day set apart for practical instruction in farming out-of-doors, every student will be expected to take part in whatever work is going forward. Compliance with this regulation will be strictly enforced, as no man can become a thoroughly-trained farmer until he has learnt by personal experience the management of live-stock, of machines and implements, of field labor, &c. Each student will be expected to be acquainted with all the operations daily performed on the Sydapet Farms, and will be expected to keep a journal or diary of the same.

Admission.

Europeans, Eurasians, and Natives of all classes are alike eligible for admission into the institution when vacancies exist on passing the entrance examination and complying with the other conditions prescribed as follow:—

Candidates must be between sixteen and twenty-one years of age, and must produce, with their application for admission, the following certificates:—

- (a.) Certificate of age.
- (b.) Do. of character.
- (c.) Do. of physical fitness.*

No fee of any kind will be charged, but every student admitted to the benefits of the institution will be expected on entrance to deposit with the Superintendent of Government Farms a sum of Rupees 20 as a fund out of which to pay fines which may be inflicted for inattention, misconduct, or other reasons. This deposit, or the portion of it that remains unforfeited, will be paid over to the student on his leaving the institution. Every student will be expected to provide himself with text-books, stationery, &c.

The entrance examination will be as follows:—

English.—Ability to write correctly and legibly from dictation, and express themselves with reasonable correctness and intelligence in a letter or in a report.

Arithmetic.—The first four simple and compound rules, vulgar and decimal fractions.

Vernacular.—Tamil or Telugu (in the case of Europeans and Eurasians only). Ability to translate into English easy sentences from an elementary vernacular prose work commonly used in schools.

History.—The leading facts of the histories of India and England.

Geography.—The outlines of geography generally and the geography of India in particular.

The date of this examination and of future entrance examinations will be duly notified in the *Fort Saint George Gazette*.

Stipendiary Studentships.

Of the candidates who pass most successfully and who are proved to belong to families of good social position interested in land as owners or cultivators, twenty-four will be selected to fill stipendiary studentships to be established by Government, to which will be attached a monthly salary of Rupees 15 in the first year, Rupees 17½ in the second year, and Rupees 20 in the third year under the following conditions:—

No stipend will be increased until the prescribed examinations have been satisfactorily passed. The stipend will be liable to be forfeited in part or in whole for continued disobedience to orders or neglect of duty, and no person who holds a stipendiary studentship will continue to hold it if found to be unfit to undergo further training from incapacity or want of interest. No stipend can be held for more than three years.

Scholarships.

Ten scholarships, each of the value of Rupees 10 per mensem and tenable for two years under certain conditions, will be given to the ten students who, at the end of the first year of training, secure the largest number of marks and who, in other respects, have given satisfaction. These scholarships are to be held under the same general conditions as will be applicable to stipendiary studentships.

Agricultural Certificate.

At the conclusion of the course of training, each student, who is found to possess the necessary knowledge and whose conduct has been satisfactory, will be entitled to a certificate certifying to his qualifications as an agriculturist.

* Should state that the candidate has been vaccinated.

School-teachers and others.

It is proposed, after the institution has been two years in existence, to make elementary agriculture one of the subjects of the entrance examination and to grant a fee of Rupees 25 to every school which succeeds in passing a student into the institution, provided the master or a teacher in that school has attended a course of instruction at the Government School of Agriculture; the fee to become the personal property of that master or teacher. Arrangements will be made under which young men who are studying in Madras to qualify themselves as school-teachers will be permitted to attend one or more courses of lectures and to undergo a partial training in practical agriculture at the institution. Arrangements will also be made to allow of persons attending one or more courses of lectures in the institution on the payment of a small fee.

General.

Students supported by other Governments, by native land-owners, or by private funds may be admitted under the same rules and regulations as stipendiary students, provided their stipends are paid regularly one month in advance to the Superintendent of Government Farms, by whom these stipends will be disbursed under the rules prescribed.

Curriculum of Study.

1st year.	2nd year.	3rd year.
Agriculture—Elementary.	Agriculture—Crops and Stock.	Agriculture.
Zoology.	Geology—Elementary.	Geology—Agricultural.
Chemistry—Inorganic.	Chemistry—Organic.	Chemistry—Agricultural.
Veterinary—Animal Physiology and Anatomy.	Veterinary—Therapeutics and Materia Medica.	Veterinary—Pathology.
Botany—Vegetable Physiology.	Botany—General.	Botany—Agricultural and Horticultural.
Drawing—Elementary.	Drawing—Plans.	Drawing—Machines, &c.
Land-surveying and Mensuration.	Land-surveying and Mensuration.	Mechanics—Farm Bookkeeping, &c.

TIME-TABLE.

First Session only.

Monday	6 to 7-30 A.M.—On the Farms—Practical Instruction in Agriculture.
	8 „ 9 „ —Lecture—Agriculture.
	2 „ 3 P.M.—Class-room Instruction—Language.
	3 „ 4 „ —Do. —Mensuration.
	4 „ 5 „ —Lecture—Zoology.
	5 „ 6 „ —Field Class—Agriculture.
Tuesday	6 „ 7-30 A.M.—On the Farms—Practical Instruction in Agriculture.
	8 „ 9 „ —Lecture—Veterinary.
	2 „ 3 „ —Class-room Instruction—Language.
	3 „ 4 „ —Do. —Drawing.
	4 „ 5 „ —Lecture—Botany.
	5 „ 6 „ —Field Class—Botany.
Wednesday	6 „ 7-30 „ —On the Farms—Practical Instruction in Agriculture.
	8 „ 9 „ —Lecture—Chemistry.
	2 „ 3 P.M.—Class-room Instruction—Language.
	3 „ 4 „ —Do. —Mensuration.
	4 „ 5 „ —Field Class—Land-surveying.
	5 „ 6 „ —Field Class—Land-surveying.

Thursday ... 6 to 7-30 A.M.—On the Farms—Practical Instruction in Agriculture.
 8 „ 9 „ —Lecture—Agriculture.
 2 „ 3 P.M.—Class-room Instruction—Language.
 3 „ 4 „ — Do. —Drawing.
 4 „ 5 „ —Lecture—Veterinary.
 5 „ 6 „ —Field Class—Veterinary.
 Friday... 6 „ 7-30 A.M.—On the Farms—Practical Instruction in Agriculture.
 8 „ 9 „ —Lecture—Botany.
 2 „ 3 „ —Class-room Instruction—Language.
 3 „ 4 „ — Do. —Mensuration.
 4 „ 5 „ —Lecture—Chemistry.
 5 „ 6 „ —Laboratory Class.
 Saturday .. 6 „ 7-30 A.M.—On the Farms—Practical Instruction in Agriculture.
 8 „ 9 „ —Weekly Examination—Each subject of lectures in rotation.

SYDAPET,
 7th July 1875.

(Signed) W. R. ROBERTSON,
 Superintendent of Government Farms.

ENCLOSURE No. 2.
Estimate of Expenditure on account of the Government School of Agriculture for the three years ending 31st of March 1879.

FIRST YEAR.			
	RS.	A.	P.
24 Stipendiary Students at Rupees 15 per mensem for 12 months ...	4,320	0	0
1 Head Master at Rupees 150 per mensem for 12 months ...	1,800	0	0
1 Assistant Master at Rupees 75 per mensem for 12 months ...	900	0	0
1 Clerk on Rupees 25 per mensem ...	300	0	0

LECTURES.			
Agriculture, 78 Lectures ...			
Veterinary, 78 do. ...			
Chemistry, 78 do. at Rupees 20, (a) each ...	1,560	0	0
Botany, 78 do. at „ 20, (b) each ...	1,560	0	0
Zoology, 39 do. at „ 15, (c) each ...	585	0	0
Peons and Attendants ...	400	0	0
Books, Stationery, &c. ...	500	0	0
Contingencies ...	1,000	0	0
Total for 1st year...	12,925	0	0

SECOND YEAR.			
24 Stipendiary Students at Rupees 17½ per mensem for 12 months ...	5,040	0	0
10 Scholarships at Rupees 10 per mensem for 12 months ...	1,200	0	0
1 Head Master at Rupees 150 per mensem for 12 months ...	1,800	0	0
1 Assistant Master at Rupees 75 per mensem for 12 months...	900	0	0
1 Clerk on Rupees 30 per mensem...	360	0	0

LECTURES.			
Agriculture, 78 Lectures ...			
Veterinary, 78 do. ...			
Chemistry, 78 do. at Rupees 20, (a) each ...	1,560	0	0
Botany, 78 do. at „ 20, (b) each ...	1,560	0	0
Geology, 39 do. at „ 15, (c) each ...	585	0	0
Peons and Attendants...	400	0	0
Books, Stationery, &c. ...	500	0	0
Contingencies ...	1,000	0	0
Total for 2nd year...	14,905	0	0

THIRD YEAR.			
24 Stipendiary Students at Rupees 20 per mensem for 12 months...	5,760	0	0
10 Scholarships at Rupees 10 per mensem for 12 months ...	1,200	0	0
1 Head Master at Rupees 150 per mensem for 12 months ...	1,800	0	0
1 Assistant Master at Rupees 75 per mensem for 12 months ...	900	0	0
1 Clerk on Rupees 35 per mensem ...	420	0	0

LECTURES.			
Agriculture, 78 Lectures ...			
Veterinary, 78 do. ...			
Chemistry, 78 do. at Rupees 20 (a) each...	1,560	0	0
Botany, 78 do. at „ 20 (b) each ...	1,560	0	0
Geology, 39 do. at „ 15 (c) each ...	585	0	0
Peons and Attendants ...	400	0	0
Books, Stationery, &c. ...	500	0	0
Contingencies ...	1,000	0	0
Total for 3rd year...	15,685	0	0

- (a) Includes Laboratory Classes and Examinations.
 (b) Do. Field Classes and Examinations.
 (c) Do. Examinations.

ABSTRACT.			
	RS.	A.	P.
First year...	12,625	0	0
Second year ...	14,545	0	0
Third year ...	15,265	0	0
Total...	42,435	0	0
Average per annum...	14,145	0	0

SYDAPET,
 7th July 1875.

(Signed) W. R. ROBERTSON,
 Superintendent, Government Farms.

From W. R. ROBERTSON, Esq., M. R. A. C., Superintendent of Government Farms, to H. E. STOKES, Esq., Acting Secretary to the Board of Revenue, dated Sydapet, 8th July 1875, No. 349.

I HAVE the honor to request that the charges shown in the accompanying statement may be entered in the estimates of expenditure forwarded to the Board with my letter, No. 347, dated the 7th of July 1875, a provision for the salary of a clerk having, by an oversight, been omitted in these estimates.

ENCLOSURE No. 1.
 STATEMENT.
First year.

	RS.	A.	P.
1 Clerk at Rupees 25 per mensem for twelve months ...	300	0	0

<i>Second year.</i>			
1 Clerk at Rupees 30 per mensem for twelve months ...	360	0	0

<i>Third year.</i>			
1 Clerk at Rupees 35 per mensem for twelve months ...	420	0	0

Sydapet,
 8th July 1875.

(Signed) W. R. ROBERTSON,
 Superintendent, Government Farms.

As directed in the Proceedings quoted above, the Superintendent of Government Farms submits a detailed scheme for establishing a School of Agriculture at Sydapet with an estimate of the cost. The Board approve generally Mr. Robertson's proposals which, except in one or two particulars, conform to the outline sketched for his guidance. The three principal points of difference are—

- (1.) The extension of the course of training to three years.
- (2.) Provision for filling up the whole number of stipendiary studentships in the first year.
- (3.) Provision for the establishment of scholarships.

2. As regards the period of training, the Board concur with Mr. Robertson in thinking that the course should extend over three years, but they do not think it at all desirable that the whole number of stipendiary studentships should be filled up at the outset; it is decidedly preferable to admit but twelve in the first year, a similar number in the second, and, if the experience acquired by that time justifies it, a third election might take place making the ultimate limit thirty-six. The number of students, stipendiary and private in each year's class, should not exceed thirty. A succession of classes has various advantages; amongst others it gives opportunity to students not able to keep up with the ordinary course to fall back on a junior class instead of continuing a hindrance to the more advanced, but perhaps the strongest objection to Mr. Robertson's proposal is that he would be equally precluded from admitting private students until the completion of the three years' course; vacancies by withdrawal, dismissal or any other cause could not be filled up, and the necessity for a junior or elementary class would be very soon apparent.

3. The ground of Mr. Robertson's recommendation is simply economy in the matter of lectures; the admission of a junior class in the second and third years will necessitate the delivery of separate courses of lectures for each class; thereby doubling the expense under this head in the second year, and trebling it in the third, if all the lectures, as proposed by Mr. Robertson, are delivered to each set of students. The Board are of opinion, however, that any increase of cost resulting from the entertainment of successive classes is absolutely necessary expenditure, and that economy must be practised in other directions. Moreover, considerations of economy apart, the number of lectures for which provision is made appears unnecessarily large, *viz.*, nine lectures a week throughout the session. Probably one lecture a day five days in the week will be as much as the students can master, and the expense would be reduced thereby nearly one-half in the first year. That the subjects will be new and the language a foreign one to the students must always be kept in mind, and it is most essential that all they do learn they should learn well. No explanation is afforded of the reason why a higher rate of remuneration is to be given for lectures on Chemistry and Botany than for lectures on Geology. The Surgeon-General, Indian Medical Department, will be requested to inform the Board whether lecturers on these subjects can be provided from the staff of the Medical College, and to state the rate of remuneration which should be given.

4. On the third point, *viz.*, the provision of scholarships, the Board concur in thinking the proposal a good one, but the number provided for in the estimate is out of proportion to the number of students, many of whom will be already in receipt of stipends. Two or three scholarships of Rupees 10 per mensem for the best students of each year will probably be sufficient to excite emulation.

5. Considering the novelty of the undertaking, the Board support Mr. Robertson's recommendation that fees should not be charged at the outset at any rate, and his suggestion that a deposit of Rupees 20 should be required on entrance, as a security for good behaviour, also commends itself to the Board. The demand is not likely to deter any applicant otherwise suitable, from admission to the classes and it partly meets arguments that may be urged with considerable force against purely gratuitous instruction.

6. The stipendiary rates appear liberal, but not excessive, considering that the object in view is to attract representatives from the better classes to study, master and disseminate principles of scientific agriculture.

7. The teaching staff appears adequate; experience will show whether further assistance will be required in the third year when there will be three classes. It should be one of the most important duties of the head-master and his assistant to explain the instruction given at the lectures and field classes and to see that it is thoroughly apprehended by the students, to the mass of whom it will be conveyed in a foreign language. The masters as well as the students will have everything to learn, and it is essential that they should be required to attend both lectures and field classes as pointed out at paragraph 5 of the Board's Proceedings, dated 20th April 1875, No. 969. This point has not been noticed in the Prospectus.

8. The Board would extend the age of admission to twenty-four years, and would not be over strict in applying the rule, should a relaxation thereof in any particular case appear desirable. Whilst desirous of making admittance as easy as possible for members of the agricultural classes, the Board consider that a fair knowledge of English must be insisted on at the entrance examination; it will be indispensable to enable students to derive the full benefit from the lectures which will be delivered in that language.

9. Mr. Robertson suggests in paragraph 3 of his letter that the agricultural certificate should be made to possess a special value by its being made a qualification for employment in one or more departments of the public service. The Board object to this proposal altogether. If a demand for agricultural knowledge exists, the offer of stipends to a large number of students is quite sufficient to attract them; but if it be proclaimed that the Government will not only pay their students but provide them with appointments afterwards, there will be no lack of applicants, but not the smallest assurance that there is any real demand for the knowledge Government offer to impart, or that it will be used in improving the agriculture of the country.

10. The expedient of offering a reward to schoolmasters for each student passed into the institution may be tried, but a much longer period than two years must probably elapse before elementary agriculture can be made one of the

subjects for the entrance examination, and the amount proposed is scarcely sufficient to induce teachers to undergo the required preliminary course of instruction.

11. Mr. Robertson's estimate of the cost of working the institution is as follows:—

First year...	Rs. 12,925
Second year ...	14,095
Third year ...	15,685

This includes a clerk with reference to his second letter read above.

If the Board's suggestions are approved, the outlay in the first year will be reduced, whilst in the third year it will be increased; the exact amount will depend on the number of lectures to be delivered and the remuneration to be paid for them and on the number of scholarships to be assigned.

In the first year a saving of Rupees 2,160 will be effected by limiting the number of stipendiary students to twelve, and if the number of lectures is reduced as suggested, a sum of Rupees 2,000 will probably suffice for that purpose, a further saving of Rupees 1,700 being the result.

In the second year, there will be twelve stipendiary students on Rupees 15 and a similar number on Rupees 17½, total Rupees 4,680, or Rupees 360 less than the estimate. If the number of scholarships is limited to three, there will be a further saving of Rupees 840. As courses of lectures will have to be provided for each class, there will be no saving in this direction, but the amount provided in the estimate will probably suffice.

In the third year, there will be three classes of twelve students each on Rupees 15, 17½ and 20, respectively, total charge Rupees 7,560, or an increase of Rupees 1,800 over the estimate. The charge for scholarships at three each for the classes of the two previous years will be Rupees 720 or Rupees 480 less than the estimate.

The number of lectures will have to be increased entailing a further expenditure of possibly Rupees 1,500, and perhaps an additional master on Rupees 50 per mensem may be required.

The total increase may be set down roughly at Rupees 3,500.

Thus the expenditure for the three years on the Board's plan will not exceed Mr. Robertson's estimate for the same period. The Board consider the proposed expenditure reasonable; if the undertaking succeeds at all, it will be well worth the outlay, and the trial to be a fair one must be conducted on a liberal scale.

12. There remains the difficulty about accommodation. Government have sanctioned the preparation of plans and estimates by the Public Works Department, but the Board fear that a considerable time must elapse before any portion of the permanent buildings can be got ready for occupation, and that unless a temporary thatched pandal sufficiently spacious for a lecture room and two class-rooms, which might be erected for an inconsiderable sum, can be provided for temporary use, the introduction of the scheme will have to be postponed for an indefinite period. When the feasibility of commencing operations in such a structure was discussed with Mr. Robertson, it was objected that a thatched

pandal would not be sufficiently substantial to withstand the monsoon, and that the heat would be insufferable in the hot weather. If these difficulties cannot be overcome, the only course open is to provide the requisite funds and push on the construction of the permanent buildings as rapidly as possible so as to commence with a winter session in October 1876, if a sufficient portion of the building can be completed in time.

13. With these remarks the Board resolve to submit the scheme for the orders of Government through the Director of Public Instruction, whose practical experience will no doubt enable him to suggest desirable modifications which have not occurred to the Board.

(True Copies and Extract.)

Ch. C. C.
Acting Sub-Secretary.

To the Acting Secretary to Government, Revenue Department,
through the Director of Public Instruction.
„ the Surgeon-General, Indian Medical Department.
„ the Superintendent of Government Farms.

Ed. W. H. French.

No. 2160.

From

THE ACTING DIRECTOR OF PUBLIC INSTRUCTION,
MADRAS.

To

THE ACTING SECRETARY TO GOVERNMENT,
REVENUE DEPARTMENT.

Sir,

I have the honor to forward for the consideration of Government Proceedings of the Revenue Board, dated the 25th August last, No. 2406 about the establishment of a School of Agriculture at Sydapett.

2. As I have no knowledge of Agriculture, either English or Indian, I presume that the "practical experience" alluded to by the Board in the last paragraph was understood by them to refer only to my being conversant with general, and not technical, Education, and it is therefore to general considerations that I shall confine myself in the few remarks that I have to offer on this subject.

3. I propose first to notice Mr. Robertson's recommendations and afterwards to comment very briefly on the review of those recommendations by the Board of Revenue.

4. In the first place I believe that for many years to come it will be necessary to have a three years' course, or in other words to maintain an elementary class. If I rightly apprehend Mr. Robertson's remarks on making elementary Agriculture one of the subjects for the Entrance Examination, he seems to contemplate the possibility at no distant date of having so much preparatory training done before the students come to the school, that their course there may be shortened. If this view is correct, I do not share his belief.

5. The Entrance Examination appears to be of much the same standard as that prescribed for the Uncovenanted Civil Service. To save as far as possible additional Examinations which are troublesome if not expensive, I would suggest that those who have passed the Uncovenanted Civil Service Examination should be accepted without further test, and *a fortiori* those who have Matriculated at the University. If a sufficient number of such men do not present themselves, an examination will then be necessary and might be conducted by the masters attached to the school of Agriculture under the general management of Mr. Robertson.

6. The Rates of stipend appear reasonable, but I agree with the Board and for the reasons stated by them in thinking that only twelve stipendiary studentships should be offered at one time.

7. With the exception of what is proposed in the last sentence, the recommendations made in the paragraph headed "school teachers and others" appear to me unlikely to work. I do not think that the fee proposed by Mr. Robertson would have any definite result, and as to those "who are studying in Madras to qualify themselves as school teachers," I think that very few would be either able or willing to go through the course suggested. Young men studying at schools in Town would not be able to spend all their mornings at Sydapett.

8. The Time table as a whole appears to me most reasonable, but I would suggest one or two modifications. I believe the afternoon hours are too long; my experience at the Presidency College goes to show that the boys get very sleepy in the third hour of class work in the afternoon, and we have in consequence as far as possible dispensed with it. I would add an hour to the morning work and have a longer interval between the return from field work and the commencement of the lecture. This would allow time for light refreshment which could hardly be got before six o'clock in the morning. I would alter the hours thus:

Monday.....	6 to 7-30 A. M.	On the Farms.
	9 to 10	" Lecture—Agriculture.
	10 to 11	" Class room—Language.
	3 to 4 P. M.	Do. Mensuration.
	4 to 5	" Lecture—Zoology.
	5 to 6	" Field class—Agriculture.

Board of Revenue,

MADRAS.

The Secy. to Govt.

PROCEEDINGS, 25th August 1875, No. 2,406.

24th Sept 1875

Encl.

24th Sept 1875

Received

24th Sept 1875

AUGUST.

No. 2,406.

School of Agriculture—at Sydapett.—Detailed scheme for establishment of—, submitted to Government, through Director of Public Instruction, with certain remarks. Surgeon-General, Indian Medical Department, requested to report whether lecturers on Chemistry and Botany can be provided from the staff of Medical College, and to state the rate of remuneration which should be given.

and similarly for the other days. Of course if the Board's suggestion be adopted of having only one Lecture a day, no further alteration of the time table will be required, but I think it probable that Mr. Robertson will consider that all the subjects of the proposed course cannot be properly put before the students unless at least nine lectures a week are delivered. I observe that only one hour (Friday 5 to 6 P. M.) is given to work in the Laboratory. This appears to me insufficient, for it takes some time for students to get out their apparatus and make every thing ready for their experiments, and if only one hour is allowed they will hardly have any time for real work. It would I think be better to give two or three consecutive hours to Laboratory work on *alternate* Saturdays on which days according to Mr. Robertson's scheme there is nothing to be done after 9 o'clock. One of the Masters should be present to see that order is maintained and real work done.

9. I entirely agree with the Board in thinking that Mr. Robertson has proposed an unnecessary number of scholarships. Three every year would be ample. I do not myself see why private students should not be required to pay a fee. Poor but well qualified students will be amply provided for by the twelve stipendiary studentships: a moderate fee would not deter those who have good means and a desire to study agriculture; and it is very desirable to maintain the principle of paying fees. The suggestion about caution money to the extent of Rs. 20 seems to me a very good one.

10. The functions assigned to the Masters in para. 7 of their Proceedings appear to me to be of very great importance. If the scheme becomes popular and attracts young men of good previous general education, the teaching of English and explanation of the Lectures by the Masters may not in time be so necessary, but if the Entrance Examination is to be pitched low so as not to deter applicants, youths of very moderate literary acquirements will be able to enter, and for them such assistance will be absolutely essential. I am afraid there will be some difficulty in getting the right sort of Masters: one at least should be a thoroughly good English scholar and a man of mature years, and the other should be well acquainted with practical Mathematics and accounts, but if they are intelligently to carry out the Board's suggestion that they should act as interpreters in some sort between the Professors and the students they must also be men of considerable general information, and quick observation.

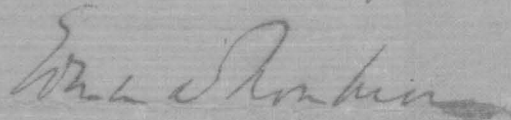
11. I am not in favour of laying down any rule about age. Any one not obviously too old to learn might be admitted as a private student, and even for stipendiary students I would go at least as far as the Board, i. e. fix twenty-four as the maximum and in the case of a decidedly fit candidate not be too particular even about that. Besides, these age restrictions are constantly evaded, and only tempt to falsehood or forgery of horoscopes.

12. The cost of the proposed school may be roughly set down at Rupees 15,000, but this, it will be observed, is exclusive of any portion of the salaries of Mr. Robertson and his Assistants. Still the benefit to be derived from the scheme, if successful, will be very great, and therefore the cost does not appear to be excessive even if we regard the School in the light of an experiment.

Office of the Director of
Public Instruction,
MADRAS, 17th September 1875.

I have the honor to be,
Sir,

Your most obedient Servant,



Acting Director of Public Instruction.

Revenue Dept

1103

REVENUE DEPARTMENT.

No. 371273713

From

Dir. Pub. Instruction
+ B. of Rev.

Dated

17 September 1875.
25 August

FOR ORDERS.

I am prepared to accept
the scheme as modified
by the B. of Rev. & the
especially I will make
the En. or the B. of Rev.
but in principle I am
in the case of candidates
who have passed
there. I think more
definite provision
should be made for

I consent
M.C.

I accept Mr. P. P. P.
& have a double number
to begin with - the staff of
land to be used to the
work - the restriction

Ans: 1875-244
H. 3712

From

The Acting Director of Public

To

The Acting Secretary to

Government,

Revenue Department.

1875.

Dated 17th September 1875.

Received 24th

Dec. 1883-244

No. 2160.

No.

Remarks, &c., with reference to
the proposed school of Agriculture
at Sydney.

170 1103

the admission of private students on part of fee. Admission of private students & Teachers etc. is provided for. A very moderate fee being charged

I.D. at once call on Dr. Robinson for his opinion as to the desirability of providing temporary classrooms &c.

Direct the preparation of plan & estimate for permanent accommodation

How soon the very ample funds is laid

Economy of construction shd. however be insisted on. L.H. 9. Oct. 75

M
1266

172

D.H.
I like the subject & joining with 24th St. building students instead of 12. as H.E. before the school takes it.

I presume there are ample funds. L.H.

$$24 \times 20 \times 12$$

$$= 480 \times 12 = 5760 \text{ pr. ans}$$

FOR ORDERS.

School of Agriculture
at Sydapet

3/7/13

circulated again to the
Hon. Mr. Stodderton with
reference to the
in support of Mr. W.
Recommendation was
to a double number of
stipendiary students
which is approved
by the Board of
Mr. Thompson &

clear

Revenue Dept

N^o 1683

Proceedings of the Madras Government

Under date the 24th Nov^r 1875

Read the following papers

Pro: Board of Revenue

Sub^d with remarks
detailed scheme for establishment
of School of Agriculture at Sydapet

H.E. 25 Aug^r 1875 N^o 2406.

Letter from Mr. Director of Public
Instruction.

Sub^d remarks with
reference to the proposed school of
Agriculture at Sydapet

- " - 17 Sept - " - " - 2160.

Signature
11/11/14

The Gov^t concurs
with the Board of Revenue
in their general approval
of Mr. Robertson's scheme

for

establishing a school of
agriculture in connection
with the for⁶ farms.

2. The main points
on which the Board differ
from Mr. Robertson are
as to the number of
stipendiary students the
number of scholarships
& the age of admission.

With reference to the first
point the Board urge
the advantages attendant

on

on ^{having} ~~leaving~~ a succession of
classes & the As^t Director
of Public Instruction supports
their views & states that
he believes it will be
necessary to maintain
an elementary class -

His Excellency the
Governor in Council also
inclines to the belief
but he sees no reason
to restrict the number
of stipendiary students
to be admitted the 1st

year

below twenty four
year, provided there are
ample funds.

3. In the matter
of the number of scholar-
ships His Excellency
agrees with the Board
but while perhaps it
may be necessary to
limit the age of admission
to twenty four in the
case of the Stipendiary
students His Excellency
would not prescribe any
limit

Limit in the case of
private students and
provision should certainly
be made for their admission,
a moderate fee being charged.
4. The attention
of the Board of Revenue
will be called to the
remarks of the acting
Director of Public In-
struction as to the
hours of study the
number

number of lectures & the
advisability of extending
the time allowed for
work in the Laboratory.

5. The General or
Matriculation test should
as suggested by Mr
Thompson be held
to suffice for admission
in the case of candidates
who have passed either
test but it is probable
that

that a special entrance
examination will also be
required. Mr Robertson's
proposal as to an
agricultural certificate
being held to be a
special qualification for
employment in one or
more departments of
the public service is
(quite) inadmissible.

6. The Board will
at once call upon Mr
Robertson

Robertson for his opinion
as to the best means
of providing temporary
class rooms & and
arrange for the prepara:
tion of plans & estimates
for the necessary accommo:
dation -
Economy of construction
should however be
insisted upon.

14 To the Board of Education
15 The Director of Public Instruction
16 The Educational Dept

J. O.
School of Agriculture
at Lydford.

Miss M. H. H. H.
to Mr. H. H. H.

Adm. H.
H. H. H.
H. H. H.

Send to H. H. H. 17 hrs/ps 18 hrs/ps
C 12 hrs/ps 17 hrs/ps.