1904.

NEW ZEALAND.

EDUCATION:

CANTERBURY AGRICULTURAL COLLEGE.

("THE CANTERBURY COLLEGE AND CANTERBURY AGRICULTURAL COLLEGE ACT, 1896.")

[In continuation of E.–11, 1903.]

Presented to both Houses of the General Assembly by Command of His Excellency.

Visitor.—His Excellency the Governor.

Board of Governors.

Appointed by His Excellency the Governor—E. Richardson.
Elected by members of the Legislature—Hon. E. C. J. Stevens (Chairman), M. Murphy, F.L.S., and D. Macmillan.
Elected by governing bodies of agricultural and pastoral associations—Sir George Clifford, Bart., W. F. M. Buckley, B.A., and J. Studholme.

Staff.

Director.—W. Lowrie, M.A., B.Sc.
Lecturer on Veterinary Science.—W. J. Colebatch, B.Sc. (Agriculture), M.R.C V.S.
Lecturer on Chemistry.—G. Gray, F.C.S.
Lecturer on Applied Mathematics.—M. Guerin, C.E.
Instructor in Woodwork.—F. W. Sandford.

Report of the Director.

Sir,—

I have the honour to submit a brief report on the work of this institution for the year ending the 31st December, 1903.

College.

The change in the curriculum brought about at the end of 1901, whereby the course of instruction was extended from two years of two sessions each to three years of three sessions each, has been in operation; but students, so far, have been confined to the first- and second-year courses, and the curriculum will be in full working in 1904 with students of the first, second, and third year respectively. As anticipated in my last report, this extension of the period of study and training is proving advantageous. More time is now available to follow up the elementary general courses of instruction in the sciences having relation to agriculture by a more detailed study of such branches of these sciences as are of more immediate practical importance.

The addition of a resident veterinary surgeon to the staff has enabled us to make the teaching of veterinary science take a more applied and useful form. The veterinary practice which has been worked up offers opportunity for valuable clinical instruction. The cases of disease, ailments, and injuries of farm stock, which farmers in the neighbourhood bring to the College or for which they seek the services of the veterinary surgeon, are just such cases as the students will meet on their farms when they leave the College. On such cases (and the number is much greater than we anticipated would be forthcoming when the practice was initiated) the development of symptoms can be observed, the causes investigated, and the treatment and progress watched with the obvious result that a real live interest is awakened to study the subject, and the information gained is sound and of the highest utility. There is no doubt that a student who has taken the full course here and is of average ability will be enabled from his training and experience to treat intelligently

the common ailments of stock on his farm and to avoid or guard against loss in various ways to which, without such knowledge, he would have been exposed in the management of his stock when he leaves the College. Indirectly also such students scattered severally in different districts of the colony will be helpful to the Veterinary Department in its efforts to control diseases among stock and reduce mortality.

As with veterinary science so with other branches of study. In botany, for example, it will be practicable to bring about a more detailed and practical study of grasses—varieties, purity of samples, treatment, and utility—and of the diseases of field and garden crops. Field-work in this subject is of the highest importance, and more time can now be given to this than could be given in a two-years' course.

The difficulties we meet in our endeavour to make this institution fulfil its function can be referred to two categories (*a*) the low standard of elementary education attained by the majority of the students who enrol; (*b*) the unsatisfactory attitude to study properly so-called of a number of young men who come up, and, indeed, to work generally.

I have pointed out in previous reports that it is desirable that the degree of preliminary education required of candidates for admission should be maintained as low as is compatible with the requirements necessary for the character of the course of study that the sons of the smaller farmers, who may have had only such elementary education as the rural schools offer, may not be excluded. Such youths I have found often work off the handicap with which they start and at the conclusion of their course take a prominent place among their fellows. The difficulty therefore has to be faced, and it would not be serious were it not that the low standard of admission allows of the entrance of youths from the secondary schools or colleges who have neglected their opportunities, and who prove often so lazy and indifferent, that they cannot be allowed to remain in residence, and, being sent back, become an unsettling element and provoke dissatisfaction.

In the second category may be placed some of the young men who come up from some sheep-stations where they may have been placed as cadets. Very few of such prove good students: too frequently they seem to have acquired habits of indolence and unpunctuality, and have little appreciation of the value of time. When such have to submit to the regulations of the College and have regular hours for work and study mapped out for them, they are taken aback and become impatient of restraint. In due time it will no doubt be known more widely that youths cannot remain in this institution, supported as it is by public endowments, and carelessly fritter away their time, and this difficulty which has beset the authorities here in the past will gradually resolve itself. The case is very different when a youth comes up from a farm: there he will have learned to work, and he knows when he enters the College enough of farm practice to enable him to make the best use of the work at the College. It would be well if every student, before he comes here, if he has not been brought up on a farm, could be persuaded to take at least a year at regular work on a farm, for his course would then assuredly be more profitable to him.

I am glad to be able to report an improved tone in the institution all round. The young men in residence as a whole are now more anxious to secure the full advantage of the training: they have accepted the position that work on the farm shall mean work, and I am satisfied that the greater number now in residence are endeavouring to do what they can to qualify themselves well for the management of stock and the practice of farming generally. On the farm they are as diligent and reliable as can be expected of young men of their age, and I am confident that when they leave the College as high a percentage of them as can, in fairness and comparatively to other institutions of the same character be expected, will prove that the technical training they have had here has been of value to them individually and to the colony.

During the year thirty-seven students were enrolled, seventeen for the second year's course and twenty for that of the third year. This number is not the full complement of the institution, but it is quite enough for the size of the farm. In this relation it must be borne in mind that a considerable percentage of the students who come here have not been brought up on a farm, and consequently are not familiar with ordinary farm practice or experienced in farm-work. Accordingly they must have practice at the various manual operations and the working of the several implements used on every farm, and, indeed, must have very considerable practice if they aspire as we desire they should do to take the College diploma. In the examination for this diploma practical farm-work and the management of stock rightly holds the most important place, and accordingly on the College farm (800 acres) there is scarcely work enough for that number of students in the course of three years to acquire that skill at the several operations which it is desirable they should acquire.

Public Lectures.

A series of weekly evening lectures to farmers was given during the winter by the veterinary surgeon on the diseases of horses and their treatment. These lectures were very highly appreciated, as was evidenced by the fact that the average attendance of farmers was somewhat over a hundred, and the lecture-room was crowded to the door regularly. Many young farmers came considerable distances to attend, and followed the course with evident interest. It is proposed to continue these evening popular lectures during the winter and spring of 1904, when the veterinary surgeon will give a course on the diseases of cattle on alternate weeks, and the Director a course on agricultural subjects or topics in the other weeks.

The Farm.

The live-stock have been maintained at a high standard of quality. A Shorthorn bull was purchased at the dispersal of the McHardy herd at Palmerston; and a Border Leicester ram from the flock of Mr. John Little of Montserrat, and a Shropshire ram from Mr. Rogers of Tinwald were

purchased for use in the College flocks. Every effort has been made to make the College farm serve the purpose of all-round efficient agricultural training for the students, and it has accordingly been maintained in good heart, well equipped, and managed on such economical lines and business methods as best meet the conditions.

As the curriculum had been extended from two to three years there were of course no students completing their course at the end of the year, and diploma examinations were not required.

I have, &c.,

The Hon. the Minister of Education. WILLIAM LOWRIE, Director.

STATEMENT of RECEIPTS and EXPENDITURE for the Year ending 31st December, 1903.

GENERAL ACCOUNT.

Receipts.	£	s.	d.
Balance, 31st December, 1902	172	13	3
Interest on capital	1,165	0	0
Rent of reserves and farm cottage	1,590	16	4
Sales of live-stock—			
Sheep	632	2	4
Cattle	228	5	0
Pigs	155	6	3
Sales of farm-produce—			
Wool	144	10	11
Dairy-produce	181	16	9
Potatoes	207	10	6
Wheat	257	13	4
Oats	14	14	8
Students' fees	902	18	4
Maintenance of students and staff, including refunds for board of Director and Farm Overseer, and sale of kitchen fat	132	17	11
Trade accounts—including dipping sheep, sale of poultry and eggs, rail freights refunded, and sale of sacks	42	2	3
Sale of books to students	21	6	4
Laboratories—Refunds for apparatus	7	13	8
Contingencies (farm)—Prizes at shows	6	10	0
Orchard, grounds, and plantations—Sale of fruit, firewood, &c.	3	2	0
Permanent improvements—Sale of standards	2	12	4
Buildings (College)—Refunds for damages	1	7	6
Stationery, stamps, and telegrams, exchange allowed on cheques, refunds for cablegrams, use of telephone, &c	2	4	6
Implements—Discount allowed	1	6	0
Workshops material—Box sold	0	4	0
	£5,874	14	2

Expenditure.	£	s.	d.
Interest on capital—Refund to Messrs. Harman and Stevens of interest received from Canterbury College on portion of its debt to Canterbury Agricultural College sold to them	108	14	3
Salaries of staff	1,221	5	1
Maintenance of students and staff	1,066	15	7
Farm wages (including £250, proportion of Director's salary)	943	14	3
Purchases of live-stock—			
Sheep	383	18	11
Cattle	162	7	6
Horses	64	0	0
Trade accounts, including horse-feed, saddlery and repairs, freight, sacks, binder-twine, woolpacks, chaff-cutting, hardware, &c.	266	14	3
Manures	132	7	5
Seeds	131	6	3
Implements	189	18	5
Laboratories—Chemicals, apparatus, veterinary drugs and instruments	149	0	0
Orchard, grounds, and plantations—Labour, &c.	101	8	9
Contingencies (College), including sundry expenses of Director, accountant, and housekeeper, rent of mail bag, repairs, expenses in connection with closing of College year	90	11	11
Scholarships	94	8	4
Buildings (College), repairs	75	16	8
Rates	65	5	2
Insurance (College)—Buildings and guarantee	43	0	9
Insurance (farm)—Buildings, machinery, employers' liability	35	12	10
Contingencies (farm), including expenses in connection with shows and sales, subscriptions, veterinary medicines, &c.	42	11	1
Farm fuel	13	3	8
Permanent improvements—Materials and labour	34	12	2
Stationery, stamps, telegrams, telephone	48	13	9
Library—Books and periodicals	22	12	5
Students' fees—Fees refunded	20	0	0
Students' books	12	13	0
Students' travelling-expenses	25	11	0
Travelling-expenses—Members of Board of Governors	32	1	6
Legal expenses	11	11	8
Printing and advertising	21	12	6
Workshops, manual training, tools, fees, and materials	47	6	4
Workshops wages, blacksmith	10	8	0
Contributions to churches	10	0	0
Examination expenses—Examiners' fees	10	10	0
Prizes and certificates	9	18	3
Workshops materials and tools	13	2	5
Apiary—Bee-keeper's sundries	4	17	7
Repairs to farm-gates, fences, and buildings	3	12	0
Experimental work, labour	1	18	0
Balance 31st December, 1903	151	12	6
	£5,874	14	2

CAPITAL ACCOUNT.

Receipts.	£ s. d.	*Expenditure.*	£ s. d.
Balance, 1st January, 1903	20,587 15 8	Balance, 31st December, 1903	20,587 15 8

MORTGAGE OF FREEHOLD ACCOUNT.

Receipts.	£ s. d.	*Expenditure.*	£ s. d.
Balance, 31st December, 1903	20,000 0 0	Loan on security of 6,001 acres	20,000 0 0

STATEMENT OF BALANCES.

Cr. *Accounts.*	£ s. d.	*Cr.* *Bank and Investment.*	£ s. d.
Capital Account	20,587 15 8	Drawing Account .. £1,310 4 7	
General Account	151 12 6	Less outstanding cheques 570 16 5	
			739 8 2
		Mortgage of freehold	20,000 0 0
	£20,739 8 2		£20,739 8 2

WILLIAM LOWRIE, Director.

Examined and found correct.—J. K. WARBURTON, Controller and Auditor-General.

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