

1903.
NEW ZEALAND.

EDUCATION: CANTERBURY AGRICULTURAL COLLEGE.

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

[In continuation of E.—11, 1902.]

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, 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 of the work of this institution for the year 1902.

At the beginning of the first session the three-years curriculum, which had been organized by the Board of Governors at the close of the preceding year, was introduced for the first-year students; but, for the students of the second year, the work as set out in the prospectus for a two-years curriculum was continued that they might complete the course of instruction within the period anticipated when they joined the College. I am confident that the change from a two-years to a three-years course will prove beneficial. It will enable us to widen somewhat the extent of the work, to devote more time to subjects of more practical importance and every day value, such as veterinary science, and altogether to give a more thorough training. As now organized, however, it is not imperative that all students who wish to compete for the College diploma shall take the full course of three years. Such as have had a fair preliminary education and give evidence that they are qualified to proceed direct to the work of the second year may do so, and can thus, as before, qualify for the diploma in two years. The most serious difficulty that we have hitherto had to meet in organizing the work and conducting the teaching has been the deplorably low standard of elementary or preliminary education which the majority of the youths who have come up to enrol evidenced. The standard for admission has been kept low that sons of farmers who have not had the opportunity of education beyond the range of the local elementary school, might not be excluded; but that class of pupil we unfortunately do not get in sufficient numbers. Nevertheless, it would be a mistake to raise the standard of admission, as such lads as do come up come direct from the farm where they may have been occupied for two or three years after leaving the elementary school, have generally more ambition, are more anxious to take full advantage of the teaching, and make better use of their training after leaving the College. In a three-years course more or less of the first year can be devoted to preliminary or preparatory work, and in the second year all students—those who came up with a good preliminary education, and those who have taken the first year's course at the College—will begin on fairly even terms, such subjects as agriculture and veterinary science which require some preliminary knowledge of such sciences as chemistry, physiology, and anatomy.

The attendance was much the same as for the preceding year. Twenty-eight students were enrolled, eighteen for the first year and ten for the second year of the course. I am sorry I am unable to report the College full, but would fain believe that public confidence in the institution and appreciation of the opportunities it offers are increasing. The policy that the Board of

Governors has adopted to the effect that students who, from want of diligence and application, do not make satisfactory progress cannot be allowed to remain in residence, has had the effect of reducing the number of students temporarily, but it will, I would respectfully urge, without question bring about a full College with the more desirable type of student in increased proportion. It is unfortunate that the impression is abroad that young men of idle habits, who have proved failures, more or less hopeless, at the secondary schools might with impunity enter residence and continue as students here; but I trust the position the Board of Governors take in relation to such will in due time be well known, and that we shall be saved the trouble of having applications from youths of that character. An educational institution is not the place for them; they interfere with the good work of *bona fide* students, and discredit their *alma mater*. Better is it to have the College partly full than to have the balance made up of such youths. I can in full assurance say that the action that has been taken during the year at different times in asking students who were not spending their time profitably to cease residence has been beneficial to the College. We have been careful, however, at all times to distinguish between ineptitude and idleness, as a youth who is slow or dull at book or laboratory work may nevertheless benefit by the all-round instruction and experience which residence here offers.

At the end of the year ten students, who had completed their course, came up for the diploma examination, and five of these satisfied the examiners, and were awarded the College diploma. The examiners in practical agriculture and dairying reported respectively as follows:—

“*Practical Agriculture*.—I have the honour to report on the examination I have held in practical agriculture during the year. I have examined the students in reaping, threshing, and shearing, and the work throughout was very well and carefully done. The ploughing results were not so good. The ground was hard and variable, and some did very poor work. In the Practical Agriculture Examination held on the 18th December, 1902, covering all the working of mixed farming, most of the students did very well indeed, and showed that they had followed intelligently the instruction and practice of the farm and stock operations and experiments carried on during the year.—GEORGE RENNIE.”

“*Milking and Dairying*.—I have the honour to report on the examination in milking and dairying conducted by me to-day. The cows are in splendid health and condition, evidently well treated, and I found the dairy and all utensils scrupulously clean. It also gives me pleasure to note a great improvement in the style of milking since my last visit. The students show a good general knowledge of all dairy-work, and, on the whole, milk well, but in a few cases ought to milk cleaner.—JOHN BARNETT.”

The following is a statement of the work done in the Chemical Laboratory during the year by Mr. Gray:—

Analyses.

| Received from | Sample. | Investigated. |
|--|------------------------------------|----------------------------|
| A. and N.Z. Land Company, Timaru | Superphosphate | Manurial value |
| House on Leeston | Soil | Estimation of salt. |
| Tothill and Watson, Dunedin | Five samples of limestone | Composition. |
| Andrews and Bevan, Christchurch | Straw knots | Seeding value. |
| College Farm | Sulphate of ammonia | Manurial value. |
| Cuff, Auckland | Two soils | Composition. |
| College Farm | Five South Australian wheats | Composition, &c. |
| Jones, Nelson | Soil | Composition. |
| Southland Meat Company | Ocean Island guano | Manurial value. |
| Stead, Christchurch | Superphosphate | " |
| Laery and Co., Christchurch | Surprise Island guano | " |
| Studholme, Hinds | Soil | Composition. |
| College Farm | Mangold manure | Manurial value. |
| College Farm | Milks | Estimation of fat, &c. |
| Jackson, Tuparoa | Siliceous deposits | Composition. |
| Twentyman, Anama | Soil | " |
| Barker, Geraldine | Mineral phosphate | Manurial value. |
| North, Geraldine | Mixture of superphosphate and bone | Retgression of phosphates. |

During the year lectures were delivered at various centres in Canterbury to agricultural and pastoral societies and to farmers' unions by the Director, the Chemist, and the Lecturer on National Science on the College staff, on subjects of direct agricultural interest.

THE COLLEGE FARM.

On the farm the year 1902, taken as a whole, was successful. The harvest at the beginning of the year was less fruitful than the average, as a smaller area had been sown in 1901 owing to changes in the staff, and the dry spring of that year had affected rather severely the yields; but the high prices of produce and stock ruling later, and the very favourable winter and spring improved the position. The farming is conducted throughout on commercial lines, in the belief that the financial aspect of the operations is most important for students in training. Extensive experimental work is not undertaken, as much of the manual work of the farm is done by students, and student labour can never be sufficiently reliable and exact to meet the requirements of experimental work, properly so called. The farm is worked for teaching purposes, and educational demonstrations specially; and experimental work is, I believe, best undertaken at special establishments, such as the experimental farms of the Department of Agriculture now established. The problems, however, which perplex the practical farmer affect equally the College farm in many cases, and investigations intended to throw light on operations and improve methods are conducted from year to year. Questions which we have now in hand are such as these, which are instanced merely as

Capital Account.

| <i>Receipts.</i> | | £ | s. | d. | <i>Expenditure.</i> | | £ | s. | d. |
|----------------------------|----|--------|----|----|------------------------------|----|--------|----|----|
| Balance, 1st January, 1902 | .. | 20,587 | 15 | 8 | Balance, 31st December, 1902 | .. | 20,587 | 15 | 8 |

Mortgage of Freehold Account.

| <i>Receipts.</i> | | | <i>Expenditure.</i> | | |
|---------------------------------|--------|-------|------------------------------------|--------|-------|
| | £ | s. d. | | £ | s. d. |
| Balance, 31st December, 1902 .. | 20,000 | 0 0 | Loan on security of 6,001 acres .. | 20,000 | 0 0 |

Statement of Balances.

| <i>Cr.</i> | <i>Accounts.</i> | £ | s. | d. | <i>Cr.</i> | <i>Bank and Investment.</i> | £ | s. | d. |
|-----------------|------------------|----------------|----------|-----------|--------------------------|-----------------------------|----------------|----------|-----------|
| Capital Account | | 20,587 | 15 | 8 | Drawing Account | .. £1,169 | 7 | 6 | |
| General Account | | 172 | 13 | 3 | Less outstanding cheques | | 408 | 18 | 7 |
| | | | | | | | | 760 | 8 11 |
| | | | | | Mortgage on freehold | | 20,000 | 0 | 0 |
| | | <u>£20,760</u> | <u>8</u> | <u>11</u> | | | <u>£20,760</u> | <u>8</u> | <u>11</u> |

W. LOWRIE, Director.

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

Approximate Cost of Paper.—Preparation, not given; printing (1,555 copies), £2 16s. 6d.

Price 3d.]

By Authority: JOHN MACKAY, Government Printer, Wellington.—1903.