

1900.
NEW ZEALAND.

EDUCATION: CANTERBURY AGRICULTURAL COLLEGE.

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

[In continuation of E.—11, 1899.]

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—John Rennie.
Elected by members of the Legislature—D. McMillan, Hon. William Rolleston, Hon. Edward Cephas John Stevens (Chairman).
Elected by governing bodies of agricultural and pastoral associations—W. F. M. Buckley, H. A. Knight, Robert Heaton Rhodes.

Staff.

Director.—J. Bayne, M.A., B.Sc. in Agric.
Lecturer on Chemistry.—G. Gray, F.C.S.
Lecturer on Natural Science.—F. W. Hilgendorf, M.A., B.Sc.
Lecturer on Applied Mathematics.—M. Guerin, C.E.
Lecturer on Veterinary Science.—J. R. Charlton, M.R.C.V.S.

REPORT OF THE BOARD.

SIR,—
Canterbury Agricultural College, Lincoln, 31st December, 1899.
I have the honour to report in outline on the work done in the college and on the farm for the year ending 31st December, 1899.

College.—During the year thirty-four students were enrolled. No important changes as to the scholastic system have taken place since my report for year ending 31st December, 1898. The system of examination by external examiners both at the June term and at the December term still obtains. Many improvements have been effected for the increased comfort of the students; all the bedrooms have been distempered, the studies in the west wing of the building have been distempered, and the walls papered. The library has been thoroughly overhauled and all the books have been classified; the number at present is 729, consisting of the following volumes, viz.: Agriculture, 133; horticulture, 21; chemistry, 119; mathematics, surveying, &c., 46; veterinary science, 40; botany, 53; entomology, 40; physiography and meteorology, 11; miscellaneous, 71; journals of societies, 150; encyclopædias, &c., 14; general literature, 31.

The following is the list of students gaining prizes, scholarships, diplomas, and certificates for the year, viz.:—

Scholarships: First-year students—H. Denniston and E. Payton. Second-year students—W. H. Black and N. Powell.

Prizes: First-year students (scientific work)—W. H. R. Scott, E. Payton, A. Mays, and H. Denniston; first-year students (practical farm-work)—A. Mays, D. Morres, and E. Payton. Second-year students (scientific work)—W. H. Black, N. Powell, W. Stewart, C. Withy, and L. Hindson; second-year students (practical farm-work)—W. Stewart, N. Powell, G. Wallace, and C. Withy.

Diplomas: Harold Wilson Black, Christchurch; Bernard William North, England; Charles Withy, Auckland; William Stewart, Balclutha.

Certificate in practical farm-work: Norman Powell, Dunedin.

In the teaching staff a change has occurred, Mr. F. W. Hilgendorf, M.A., B.Sc., having been appointed in room of Mr. J. W. Mellor, B.Sc., who has gone to England to prosecute his scientific studies. Messrs. G. Gray, F.C.S., M. Guerin, C.E., and J. R. Charlton, M.R.C.V.S., are still in charge of the chemical, mathematical, and veterinary departments respectively.

Farm.—The farm is in good order, and is practically free from weeds. The gorse fences which for the last six years had almost ceased to exist have greatly improved during the past year, and, should the improvement continue, will afford the much desired shelter for stock in the winter months, and add to the general appearance of the farm.

The cereal crops for 1898–99 yielded the highest average obtained on the farm. This year the cereals, more especially the autumn-sown ones, look equally well, and promise to yield as abundantly as those of last year. The mangolds, comprising the principal different kinds on the market, promise to be an excellent crop; and so do the carrots and potatoes. The turnip-crop is satisfactory.

During the early part of the summer feed was scarce, owing to the cold weather then prevailing; now, however, there is a sufficiency of grass, and with the roots and straw on the farm the winter for stock is already provided for.

A number of very valuable experiments were carried out throughout the year, and the results of these have been prepared in short tabular form, and will be appended to this report, which it is intended to disseminate amongst the various agricultural societies and newspapers throughout the colony. These comprise experiments with grain-crops, root-crops, cultivations, &c.; also with the different crosses of sheep for the production of fat lambs most profitable for freezing purposes.

As usual, a number of improvements have been effected throughout the year: boundary-fences have been erected; large spring-holes (dangerous to the safety of stock) have been filled; a rectangular shelter-belt has been partly planted; and the meteorological station has been changed.

The live-stock are steadily being improved, and sales are being effected to all parts of the colony. The cattle are as last year, consisting of a herd of Shorthorns, also two of each of the following breeds, which are kept for educational purposes, viz.: Aberdeen-Angus, Ayrshire, Hereford, and Jersey. An additional stud flock of Southdown ewes has been added, so that the stud flocks are now six in number, and consist of Border Leicesters, English Leicesters, Romney Marsh, Lincolns, Shropshire Downs and Southdowns.

This year a flock of three hundred Lincoln-merino half-breeds were bought for experimental purposes, these being put in lots of fifty to rams of the following breeds, viz.: Shropshire Down, Southdown, Lincoln, Romney Marsh, English Leicester, and Border Leicester. The progeny of these will be sold in the local market, and the results tabulated, and, as the experiment of this year, sent throughout the farming community of the colony.

The live-stock stand almost the same as for last year, and comprise—cattle, 89; sheep and lambs, 1,361; horses, 19; pigs, 62; poultry, 225.

I have, &c.,

The Hon. the Minister of Education, Wellington.

J. BAYNE, Director.

STATEMENT of RECEIPTS and EXPENDITURE for the Year ending 31st December, 1899.

FARM ACCOUNT.					
<i>Receipts.</i>		<i>£ s. d.</i>	<i>Expenditure.</i>		<i>£ s. d.</i>
To Rent of land .. .. .	.. .. .	10 0 0	By Farm wages (including share of Director's salary) .. .. .	.. .. .	749 1 6
Sale of grain, &c.—	.. .. .		Students' wages .. .. .	.. .. .	150 7 1
Wheat .. .. .	.. .. .	501 19 3	Trade accounts—Repairs, sheep-dip, corn-sacks, &c. .. .. .	.. .. .	222 11 8
Oats .. .. .	.. .. .	112 1 2	Seeds .. .. .	.. .. .	34 8 1
Grass-seed .. .. .	.. .. .	70 7 10	Manures .. .. .	.. .. .	22 8 0
Linseed .. .. .	.. .. .	2 7 3	Fuel .. .. .	.. .. .	8 14 2
Peas .. .. .	.. .. .	1 2 0	Rates .. .. .	.. .. .	35 4 9
Potatoes .. .. .	.. .. .	24 7 0	Insurance of farm buildings and im-	.. .. .
Sacks .. .. .	.. .. .	31 0 9	plements .. .. .	.. .. .	32 5 7
Sale of live-stock—	.. .. .		Implements .. .. .	.. .. .	42 10 0
Sheep .. .. .	.. .. .	579 18 4	Farm contingencies .. .. .	.. .. .	62 12 0
Cattle .. .. .	.. .. .	59 2 9	Permanent improvements .. .. .	.. .. .	18 14 8
Horses .. .. .	.. .. .	32 0 0	Lothead's grain .. .. .	.. .. .	34 10 1
Pigs .. .. .	.. .. .	109 14 6	Repairs to gates and fences .. .. .	.. .. .	15 14 3
Sale of dairy produce .. .. .	.. .. .	185 4 5	Repairs to cottages .. .. .	.. .. .	8 14 3
Sale of wool .. .. .	.. .. .	135 18 3	Purchase of live-stock—	.. .. .
Trade accounts—Sale of eggs and poultry, and dipping sheep .. .. .	.. .. .	43 9 4	Sheep .. .. .	.. .. .	289 3 10
Farm contingencies—Prizes gained at show .. .. .	.. .. .	6 17 0	Horses .. .. .	.. .. .	26 10 0
			Pigs .. .. .	.. .. .	4 0 0
			Balance carried to General Account .. .. .	.. .. .	147 19 11
		<u>£1,905 9 10</u>			<u>£1,905 9 10</u>

There was rather a tendency to write very fully, instead of being concise, and sometimes to answer more than was asked for.

Dr. W. P. Evans, examiner in chemistry, reported that the work of the first-year students was very weak, and judging by examination results only three seemed sufficiently advanced to start a higher course. The work of the second-year students was, on the whole, quite satisfactory. In practical work nearly all did fairly well, while some did very well indeed.

Dr. Arthur Dendy, examiner in natural science, reported that, of the ten first-year students who presented themselves for examination, two passed in all the papers, four passed in botany, eight in entomology, six in physiography, and four in practical botany. In the second year, five out of the thirteen students who presented themselves for examination passed in all the papers, and two were doubtful; six passed in botany, nine in entomology, and thirteen in practical botany.

Mr. A. Dudley Dobson, examiner in applied mathematics, reported that in written subjects the first-year students acquitted themselves very creditably. The second-year students did not do nearly so well, the bookkeeping in particular being very defective; in plotting and mechanics also the questions were very poorly answered. In field-work both sections did very good, intelligent work, especially in chain surveying, but it was considered that more attention should be given to the plotting. The farm-books are neatly kept.

Mr. J. A. Gilruth, examiner in veterinary science, reported that the first-year students' knowledge was much below the average of previous years. In the second year, however, the previous high standard had been well maintained.

Mr. T. H. Evans, examiner in reaping and stooking, reported that the twelve students who took part in the reaping and stooking examination did their work in a very pleasing manner, showing that the ground-work in that particular branch of practical farming had been well instilled into them.

Mr. D. Buddo, examiner in threshing, reported that he found attention to duties and smartness a strong feature of the instruction given. The system of giving each student a knowledge of every duty about the threshing-machine was a very commendable one, and the replies to questions put to the students showed that sound elementary instruction had been given.

Mr. J. Deans, examiner of shearing, reported that the work was well done in most cases, and in some the shearing was first-class. In several instances the sheep, although heavy, were handled well. The fleece-rolling in most cases was good, but few of the students appeared to have much idea about skirting the fleece. This important matter should have more attention paid to it in the future.

Mr. J. Barnett, examiner in milking and butter- and cheese-making, reported that the cows appeared to be treated kindly—an important matter—and on the whole the milking was good, but one student was failed for not milking his cow clean, as good cows were soon spoilt if not milked clean. Everything about the dairy was very clean, and the students showed a good general knowledge of butter- and cheese-making.

Mr. John Watson, examiner in blacksmithing and carpenter's work, reported that, generally speaking, and with few exceptions, he was highly satisfied with the work done. He considered that the students had such a knowledge of horse-shoeing and carpentry as would prove useful in enabling them to do such work on their own farms, should the necessity arise, or in understanding intelligently when such work was done satisfactorily by others.

Mr. T. B. Howson, examiner in ploughing, horse-grooming, hedging and ditching, reported that the grooming was creditably done, and the ploughing, as a whole, was better than he expected to see, although the ploughs were not in proper working order. The hedging and ditching was, with one small exception, done well, and in good time, and would pass as a well-finished contract on any farm.

J. BAYNE, Director.

Approximate Cost of Paper.—Preparation, not given; printing (1,575 copies), £2 11s. 6d.

By Authority: JOHN MACKAY, Government Printer, Wellington.—1900.

Price 3d.]