

1929.
NEW ZEALAND.

CANTERBURY AGRICULTURAL COLLEGE

REPORT OF THE BOARD OF GOVERNORS ON THE PROGRESS OF THE COLLEGE, TOGETHER WITH A
STATEMENT OF RECEIPTS AND EXPENDITURE, FOR THE YEAR ENDED 31st DECEMBER, 1928.

*Laid on the Table of the House of Representatives in pursuance of Section 8 of the Canterbury College and
Canterbury Agricultural College Amendment Act, 1927.*

CANTERBURY AGRICULTURAL COLLEGE, LINCOLN.—ANNUAL REPORT, 1928.

Visitor.—His Excellency the Governor-General.

Board of Governors.—John Deans, Esq. (Chairman); Hon. D. Buddo; W. A. Banks, Esq; Professor H. G. Denham;
H. A. Knight, Esq.; C. H. Hewlett, Esq.; H. S. S. Kyle, Esq., M.P.; George Murray, Esq.; T. A. Stephens, Esq.;
N. M. Orbell, Esq.

Staff.

Director.—R. E. Alexander, A.R.C.Sc.I.

Secretary.—E. W. Smart.

Lecturers.—Biology: F. W. Hilgendorf, M.A., D.Sc., F.N.Z.Inst.; Assistant, J. W. Calder, M.Sc., B.Ag. Chemistry:
M. J. Scott, B.A. (Cantab.), B.Sc.A.I.C.; Assistant, D. J. Sidey, B.Ag., H.D.D. Economics: I. W. Weston, M.Sc.
Veterinary Science: R. B. H. Murray, M.R.C.V.S., D.V.S.M.

Farm Overseer.—R. A. Fougere.

REPORT OF THE DIRECTOR.

I HAVE the honour, by direction of the Board of Governors, in pursuance of the Canterbury College and Canterbury Agricultural College Act, 1898, to submit the following report of the work of the institution for the year ended 31st December, 1928.

Fifty-three students were enrolled in 1928. Of these, six were taking the degree course and two were post-graduate students taking M.Ag.Sc. course. The last-mentioned students both completed their thesis and obtained the degree of Master of Agricultural Science, with second-class honours. Four students completed the B.Ag. course, and three qualified for the degree.

Eighteen students left at the end of the course or during their third year. Of these, fifteen passed all examinations and were awarded the diploma of the college. Four left at the end of their second year, and one at the end of the first-year course.

The work of the students, both in the College and on the farm, has been satisfactory. The competition among the students for class prizes and general attention to work have been favourably reported on by the staff.

RESEARCH WORK.

1. *Wheat-breeding.*—The work was considerably extended during the year, about 24 acres being covered with various trials. All new and promising varieties from abroad were given extensive trials against our standard varieties; some twenty strains of crossbreds were tried on a field scale, and many hundreds of new crosses, designed to improve the milling and baking quality of New Zealand wheats, were tried on a smaller scale. In all there were over three thousand plots to be observed and harvested and threshed separately.

2. *Oat-breeding.*—Beside the pure strains of oats now in use, a start has been made in crossing oats, Algerians and Gartons being used for parents.

3. *Breeding of Pasture Plants.*—Rye-grass, cocksfoot, and red clover have received a considerable amount of attention. A great number of strains have been isolated, and very striking differences in their productivity have been noticed, some strains proving much more permanent than others, and some producing two or three times as much feed as others.

The most promising of the early cocksfoot selections have been planted out in field trials in competition with the commercial seed, and weighings are being made of the herbage produced. The best strain of all has been fixed on to become the parent of seed for distribution, and has been planted out over an area of $1\frac{1}{2}$ acres, under conditions calculated to secure maximum seed-production.

Besides the plots at the College, others of both rye-grass and cocksfoot have been established in twenty widely scattered localities in the South Island, from Nelson to Southland, and there are a total of 3,100 plots under observation.