

This, I think, may be taken as a description of the actual work carried on by the College for the benefit of students who are in residence for the complete term, but in addition to this there is a very valuable branch known as the *Dairy School*.

The object of this section is to supply the demand from all parts of Australasia for men qualified to supervise the supply, manufacture, and marketing of dairy-produce. The course takes two years, and the whole time is devoted to the theoretical and practical study of these subjects. In other words, the course is to provide men competent to become managers of butter and cheese factories, of dairy farms, creameries, condensed-milk factories, and suitable for appointment as Government dairy inspectors, or instructors in agriculture for technical colleges, experimental farms, and agricultural high schools.

In addition the school is used for experimental work in matters relating to the breeding, rearing, and feeding of stock, and in the manufacture of dairy-produce for home use and shipment to other markets. The students must not be less than seventeen years of age.

The fees are £30 per annum, payable half-yearly, this being for the maintenance and education of each student. There are also small extra charges for medical attendance, and so on.

A limited number of non-resident students are admitted on the approval of the Minister, the fees for whom are £2 2s. per annum. The curriculum of this school for the two years is as follows:—

First year: Principles of agriculture and live-stock; elementary chemistry (theory and practice); elementary veterinary science; book-keeping; mechanics.

Second year: Dairy chemistry (theory and practice); milk- and cream-testing (theory and practice); cream-grading; buttermaking (theory and practice); elementary cheesemaking (theory and practice); veterinary science as applied to cattle and pigs; dairy engineering; factory design and management; bacteriology; factory book-management; sanitation and public-health regulations.

At the end of the year an examination is held, and students have to obtain 50 per cent. of the total maximum marks and not less than 33 per cent. in any one subject in order to secure a pass. Those proving successful at the end of the course are entitled to the academic distinction of H.D.D. (Hawkesbury Diploma of Dairying).

Students also have lectures in the yards on live-stock, when judging horses, cattle, and pigs on a system of score-cards is regularly and systematically taught. They have practical work on the farm such as the arrangement and construction of buildings, yards, and fences; instruction in the management and working of implements and machinery; cleaning, feeding, and management of live-stock; identification and selection of seeds; valuations of stock; and generally everything that is likely to aid the students to become successful dairy-farmers.

*Winter School for Farmers.*—Another branch of the College work which is of great interest is that described as the winter school for farmers. This is provided at the slack period of the year for busy farmers and stockowners, who can devote only a limited time to study and intensive practical instruction.

The winter-school course embraces a large variety of subjects, and students are invited to select such branches of training as may be best suited to the conditions in their own districts and farms. The course of instruction is for four weeks. Farmers and graziers, or their sons who have worked one year on the land and are of the age of sixteen years, are eligible for admission. The number is limited to one hundred. The Railway Department offers specially favourable rates for students attending the winter school. The fee is £2 2s. for the course, *including board and lodging at the College*.

Instruction is given by lectures on such subjects as lime and liming the soil; irrigation; principles of breeding of stock; the composition and characteristics of milk; crops for dairy cattle; ensilage; feeding of cattle; feeding of pigs; diseases of pigs; bacon-curing; insect pests; diseases of grain; trees and their importance to farmers; useful and destructive birds; farm book-keeping; measurement of haystacks, silos, &c.; estimating the capacity of dam-excavations; elementary surveying; use of the prismatic compass; hints on draining, levelling, &c., on the soil; rotation of farming; drainage; points on manuring, farmyard manure, commercial fertilizers; cultivation of grain crops; preservation of pastures; and many other subjects of use to practical farmers.

Further, outdoor demonstrations and field-work are carried on in the construction of implements and machinery (ploughs, harrows, rollers, seed-drills with fertilizer attachments, mowing and harvesting machines, junior hand machines, &c.), the care of farm implements and machinery, conservation of farmyard manure, cleaning and grading of seeds. Field lectures on growing crops are also available for students.

Demonstrations are also given in carpentry by the foreman carpenter. Instruction is given in the management and feeding of poultry; in the management and care of steam-engines, boilers, &c.; in the use of the electric motor in agriculture, sawing-machines; in blacksmithing work (including general repairs to agricultural implements and machinery); saddlery (how to cut up a side of leather, lining of saddles and collars, making light and heavy thread, &c., use of knives, punches, pliers, &c., in saddlery work, and repairing of all parts of harness, including blinkers, lines, collars, and saddles).

Students also have an opportunity of acquiring information by a series of yard lectures on the breeding, management, &c., of pigs, the fattening of pork and bacon, and the practical work includes the killing and dressing of pigs, the curing and smoking of bacon, castrating and ear-marking. Demonstrations are also given in hedge-cutting and trimming, propagation and planting of hedge-cuttings, budding and layering, pruning trees and shrubs, the erection of fencing-posts and wire-posts, mortising, &c. Lectures and demonstrations for those who desire instruction in veterinary science (including first aid to sick and injured farm animals), and by a bee expert on various phases of bee-keeping, are also given.