

The loyalty shown by Dr. Richardson to South Australia has been a feature of his association with Victoria. Two or three years after coming to this State, although a very young man for such a position, he was offered a professorship of agriculture at the Perth University and considering that he owed much to this State, he declined it almost off hand. In 1918 he was appointed by the Government to visit the United States and Canada to study the systems and methods of agricultural education and research in those countries and to make recommendations to the Victorian Government in order to place agricultural education in Victoria on a sound basis. In transmitting the resultant report to the Minister of Agriculture, Dr. Cameron wrote: "Seldom, I think, has a commissioning Government been furnished with so satisfactory a fulfilment of its commission," while the editorial columns of the Experiment Station Record, the official organ of the United States Department of Agriculture, commented: "It is a highly intelligent and accurate exposition of the American view of agricultural education and the spirit and motive of agricultural institutions. This excellent report will furnish a reliable basis for agricultural development through education and research."

Death of Trained Officers.

The greatest obstacle that the Department of Agriculture has had to contend with during the last decade has been the difficulty of obtaining a sufficiency of suitably trained officers to carry out the advanced scientific work which necessarily must precede the pronouncement of improved methods. The output of University graduates in agricultural science fell away to practically nil during the last years of the war, and in 1918 it was seriously considered by the University authorities that the agricultural course should be abandoned. The check to the progress of the department which such a step would have entailed induced the Government to pass the Agricultural Education Act, 1919, which enabled the present effective degree course at the university to be established. A sum of £104,000 was appropriated for agricultural education over a period of 10 years, and a flow of graduates to engage in extending the scientific work of the department made certain. The efforts to attain this epoch-making advance were ably seconded throughout by Dr. Richardson, and when, as a result, the Melbourne University School of Agriculture came into being in 1920, he was appointed Dean of the Faculty of Agriculture, Director of the school, and lecturer in agriculture, an arrangement being made with the Government for half-time service to be given to enable him to carry out these duties. The first crop of students under his regime will graduate in December next, and from that time on the Department of Agriculture may be expected to have an adequacy of staff on the agricultural side which it has never before enjoyed. The new buildings for the School of Agriculture at the university were designed wholly by Dr. Richardson. The planning of the lecture rooms, museum, and laboratories is such that distinguished visitors to the science congress held last year in Melbourne declared that the museum excels in practical teaching value anything to be found in other parts of the world. Every exhibit is arranged in such form that it tells its own story. Each primary industry in Australia is graphically illustrated, and the design of certain of the museum exhibits has been copied for similar exhibits in the Australian section of the Empire Exhibition.

Science and the Farmer.

Perhaps the most dramatic change effected in Victoria by Dr. Cameron and Dr. Richardson has been in the attitude of the farmer to science and the scientist. Twelve years ago, at least among growers, the scientist was considered a theorist, who might be helpful in giving information about diseases, but who on the cultural side could be treated with good-natured contempt—and not always good natured. To-day, the scientist is listened to with respect on every factor. Definite facts have been elucidated; those facts have been tested by the farmer himself, and have not been found wanting. The scientist is now welcomed on the farms, and at periodical meetings of men on the land the demand is made for more scientists, so that farm-to-farm visits can be made. Dr. Richardson is a propagandist. Even when he first came to the State he had the calm confidence on the platform which comes only with knowledge of a subject. He is what may be termed a "downrighter," always true to his ideals. On the cultivation side he has treated agriculture as a subject capable of study as an exact science. He established exact experimental methods in agricultural practice in Australia, and his lead has been followed throughout the Commonwealth, so that he now has a number of co-workers in all the other States. On recent occasions in which there have been opportunities for him to be judged side by side with world-famed scientists who have visited Australia, such as at the Pan Pacific conference of last year, his methods of work in regard to the big problems of the country were extolled as on a level with the best elsewhere, and that despite the fact that such work in other countries has had the aid of old-established and financially well-endowed institutions, with large and well-trained staffs. So much could not have been accomplished in so few years had it not been for the help of Dr. Richardson.

# THE MAN ON THE LAND.

## Attention in Victoria.

At about this time his work attracted the attention of Dr. S. S. Cameron, Director of Agriculture in Victoria, who was much impressed by the thoroughness and scientific soundness of young Richardson's work. Indeed, that astute judge of men recognised in the young man great potential capacity for influencing agriculture with a view to appointing him to a post of development, and approached him in the Victorian department. Dr. Richardson, exhibiting a characteristic loyalty to his immediate work, considered that, given a proper opportunity, duty demanded that he should remain in South Australia, and he refused the attractive proposal which carried with it a doubled salary. Later on, realizing that greater opportunities would be afforded him in joining the Victorian department, he resigned, expressing to his friends his regret that circumstances were such that he could not give his best to his native State. It was in 1911 that Dr. Richardson accepted appointment as agricultural superintendent in the Victorian Department of Agriculture, his duties being defined as "(1) To act as head of the agricultural division and, subject to the Director, to control, direct, and be responsible for the work of the branches comprising the division and officers thereof; (2) to organize and control all experimental and demonstrational work of an agricultural character; (3) to assist in promoting the improvement of agricultural practice." It was early manifest that Dr. Cameron's judgment was justified; the two officers quickly impressed themselves on State progress, and throughout a prolific 13 years have effected a transformation in wheat-growing and other primary industries. Perhaps this would not have been possible had their relations not been so cordial. Dr. Richardson concentrated upon cultural and similar problems, and Dr. Cameron, appreciating the breadth of his outlook, gave him a comparatively free hand. Dr. Cameron himself had only recently come to the high office of director, and in furtherance of the policy of concentration of investigational work which he adopted had provided for the establishment of a central research station, where the work of the scientific staff of the department could be efficiently directed, and the teachings of the department illustrated at close hand. In pursuance of this policy, all but two of the State farms then existent were closed, and work at the State Research Farm at Werribee was commenced in May, 1912. Within a few weeks researches and investigations which have proved of supreme importance to the development of the State were planned, and have since been carried out. Wheat improvement, farm crops with factors influencing the soil renovation, crop rotation systems, tillage methods, water requirements of same, genetics, pasture improvement, crop nutrition, and last, but not least in its influence, irrigation problems, have all received attention. Much of this work had not hitherto been attempted in Australia, and Sir Daniel Hall, a world authority on the subject, after inspecting the institution in 1914, publicly stated that in the excellent conception of the layout of the farm to serve its purpose and the scope of the investigational work initiated, the station was the most complete he had seen in any part of the world. A series of permanent field plots was also laid out at the Rutherglen Experiment Farm, and the Longerenong College, with similar objectives under different soil and climatic conditions.

## Views on Wheatgrowing.

It is not intended here to follow stage by stage the progress made. In 1912 Dr. Richardson published a bulletin in which he indicated what he considered were the main factors to be kept in view in wheatgrowing. In the order of the placing these were early fallowing, thorough cultivation, systematic rotation, rational manuring, and systematic seed selection. Each year thereafter exact evidence was obtained as to the influence which each was capable of exerting on the average yield, and the results were driven home to farmers through the medium of farmers field days, field demonstration plots, farm and crop competitions, bulletins, lectures, and press propaganda. Within the last 15 years the average crop yields in the Wimmera, where the department has functioned more thoroughly than anywhere else, have increased by 300 per cent., reckoning them in five year periods, while in relation to inch of rainfall they have risen from half a bushel to 1½ bushels, a radical change which reflects as much credit upon the broad-gauged character of Victorian farmers as upon Dr. Richardson himself. In pounds, shillings and pence the progress attained has added millions to the annual production of the State with. In the Wimmera wheat yields are now estimated in bags where previously they were considered in bushels. The optimum development was reached last year at Longerenong College, where 120 acres of Federation wheat returned an average of 53 bushels per acre—just because, according to the report of the principal, the methods adopted were those found to be most profitable in the experiment plots established at the college by Dr. Richardson. Similarly in pasture improvement, and the production of lucerne in irrigated culture, returns are markedly on the upgrade. Indeed, there is hardly a phase of rural production upon which the department has not thrown helpful light.

## DR. A. E. V. RICHARDSON.

### His Influence Upon Agriculture.

All good Australians must view with satisfaction the fact that one of their number has attained the dignity of Doctor of Science as a result of work done in Australia for the betterment of a leading industry of the country. Other brilliant Australians have won distinctions as marked, but invariably for original work which has first helped distant communities. Dr. Richardson M.A., D.Sc., of Victoria, has loyally preferred to give his best to his homeland which, because of his youth, is confronted with problems urgently requiring attention. Agricultural science is a comparatively modern affair, and its ramifications must be applied with direct consideration to local conditions. Hence a set of practices which may be adapted for, say, European conditions, cannot necessarily be applied to Australia. Dr. Richardson has made it his life work to apply himself to our agricultural problems, and the lead he has given is affecting, and must affect, our material development to an extraordinary degree. He is a comparatively young man, and yet there is not a coterie of farmers in the Commonwealth that has not already been inspired to a strong hope by his accomplishments. He has been awarded the degree of Doctor of Science of Melbourne University for original research work on the water requirements of Australian farm crops, also on wheat and wheat breeding investigations, the influence of which has as direct a bearing upon the progress of Western Australia and New South Wales as upon that of Victoria. The dignity is the more notable because this is the first occasion on which work upon purely agricultural subjects has received recognition for a doctorate of science in any Australian University. The theses in which his distinctive work was presented were submitted to Sir Daniel Hall, F.R.S., formerly director of the Rothamsted Experimental Station, and now Scientific Adviser to the Board of Agriculture of Great Britain, who is regarded as the world's foremost agricultural scientist. He most favourably commented upon the theses submitted by Dr. Richardson.



DR. A. E. V. RICHARDSON, M.A.

Trained in South Australia. Born in South Australia, Dr. Richardson is 40 years old. Largely by the aid of bursaries, he proceeded from the primary to the secondary schools and the University of Adelaide. His training was directed to specialized agricultural science, first at the Roseworthy Agricultural College, where he gained the first-class diploma, and then at the University of Adelaide, where he took courses in arts and science and, without a set-back, obtained the degrees of master of arts and bachelor of science concurrently. This performance will appear the more notable when it is said that he secured first-class honours in inorganic chemistry, organic and physical chemistry, biology, botany, and geology (part II). In specializing for his science degree in agriculture he spent a year in research work on the chemical and physical qualities of flours made from low and high grade wheats, and the thesis which resulted was highly commended by the Sydney University, and approved for the degree. Upon leaving the university, Dr. Richardson became associated with the Department of Agriculture in South Australia, and almost immediately displayed keen foresight in concentrating upon two salient problems—dry farming and wheat breeding. At the Parafield experimental station he originated new varieties of wheat that have since made a reputation, and so impressed his personality upon the local department that he speedily attained the positions of assistant director of agriculture and acting-director.

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## ADELAIDE UNIVERSITY

### Extension Lectures

An attractive series of three courses of University extension lectures is announced. The first of the series will be given by Professor Strong on "Great Writers of the Age of Shakespeare."

He will describe the spirit of Shakespeare's age and its social and political background. He will show that Elizabethan London, with a population only the half of Adelaide's, yet contained at least 19 theatres and a round dozen of playwrights, any one of whom would have been reckoned a notable figure in any nation's literature.

Several of these dramatists, including Marlowe, Shakespeare, Webster, Ben Jonson, Beaumont, and Fletcher, will be discussed in detail. It will be shown that Elizabethan literature was far more closely connected with public thought and action than is the literature of our own day, and the lecturer will discuss the literature of warfare and the sea, with special reference to Hakluyt and Raleigh, and to the patriotic poems of Drayton and Daniel. Emphasis will be laid upon the pride of Elizabethan England in its historic past, and it will be shown that this pride was largely responsible for the historical plays of Shakespeare and his contemporaries.

The Elizabethan seamen and adventurers had their counterparts in the Elizabethan poets and writers of imaginative prose, who were, in fact, adventurers in the world of the spirit. Many of them, including Sidney, Chapman, and Daniel, had a veritable passion for learning and beauty, and this passion transfigures much of their writing.

The lecturer will discuss the poetry of Edmund Spenser and his followers, and will show in what ways it expresses the spirit of the Renaissance. An account will be given of the Elizabethan sonneteers, including Shakespeare, and the Shakespearean and modern forms of the sonnet will be compared. Quotations will be given from the lyrics of the period, from Greene, Lyly, and Peele down to Heywood and Campion, and it will be shown how their work reflects the spirit of the age and its lyric joy in life and beauty. Special reference will be made to Ben Jonson and the "Sons of Ben," including Herrick and Randolph.

When discussing Elizabethan prose the lecturer will emphasise its remarkable range and variety, and also the uncertainty of its power and inspiration. He will discuss Hooker and the religious prose of the period, Bacon and other essayists, Breton and other "character" writers, and the literature of roguery and vagabondage, with special reference to Greene and Dekker. The course will conclude with a retrospect of the whole period.

The first lecture will be given on Tuesday, June 10, in the Prince of Wales lecture room at the University. Full particulars of the whole series can be obtained on application at the registrar's office.

## UNIVERSITY LECTURE.

### AN ATTRACTIVE SERIES

An attractive series of three courses of University extension lectures is announced in our columns. The first of the series will be given by Professor Strong on "Great Writers of the Age of Shakespeare." During his course he will describe the spirit of Shakespeare's age and its social and political background. He will show that Elizabethan London, with a population of only half of Adelaide's, yet contained at least ten theatres, and a round dozen of playwrights, any one of whom would have been reckoned a notable figure in any nation's literature.

Several of these dramatists including Marlowe, Shakespeare, Webster, Ben Jonson, Beaumont, and Fletcher, will be discussed in detail. It will be shown that Elizabethan literature was far more closely connected with public thought and action than is the literature of our own day, and the lecturer will discuss the literature of warfare and the sea, with special reference to Hakluyt and Raleigh, and to the patriotic poems of Drayton and Daniel. Emphasis will be laid upon the pride of Elizabethan England in its historic past, and it will be shown that this pride was largely responsible for the historical plays of Shakespeare and his contemporaries. The Elizabethan seamen and adventurers had their counterpart in the Elizabethan poets and writers of imaginative prose, who were, in fact, adventurers in the world of the spirit. Many of them, including Sidney, Chapman, and Daniel, had a veritable passion for learning and beauty, and this passion transfigures much of their writing.

NOTICE (Wednesday), 27th May, at 11 AM. On view from 10 o'clock. Full list appeared in yesterday's paper.