

The Director of the Waite Research Institute (Dr. A. E. V. Richardson), who has been absent from the Commonwealth for 13 months, during which time he has visited South Africa, England, Ireland, Scotland, Denmark, Sweden, the United States, Canada, Japan, and Java enquiring into agricultural matters, returned to Sydney a few days ago. He represented Adelaide at the Congress of Universities of the Empire at Cambridge, and at the Educational Congress at Sorbonne, near Paris. He also represented Australia at the meetings of the British Association for the Advancement of Science at Oxford, and attended the Pan-Pacific Congress in Japan.

In an interview, Dr. Richardson said the main object of his visit was to investigate the progress of agricultural research and agricultural education in the countries he visited. Generally, there had been a great increase in the interest displayed in agricultural education and research. It was particularly noticeable in Great Britain, South Africa, the United States, and Japan. Java had always been wonderfully organised from the point of view of agricultural research.

"The great lesson we have to learn," he said, "is the value placed on agricultural research in other countries, and the great increase in production that has been brought about by systematic organisation. Enormous progress has been made in the wheat industry in Canada by the breeding and production of a new variety of wheat. The Marquis wheat—a production of Dr. Saunders—has displaced all other varieties in Canada, and is spreading to the wheat-growing regions of the United States. It is estimated that the production of this new variety has increased the annual yield by over 20,000,000 bushels. In Sweden the production of a new variety of wheat that is prolific, hardy, and early maturing has led to the trebling of production during the past twenty years, owing to the wheat belt being pushed farther north by the production of the new variety. Similar developments in the realm of plant breeding have been shown in the enormous increase in the rice crop of Japan, which now exceeds 340,000,000 bushels—nearly twice the Australian wheat crop. Sir Rowland Biffen, of Cambridge University, has been successful in producing a prolific variety of wheat of high milling quality, and this is rapidly superseding the older varieties, particularly in the eastern half of England."

Dr. Richardson said that probably in no part of the world was science applied to intensive crop cultivation with such amazing practical results as in Java. The Dutch Government maintained a large department of agriculture with scientific branches relating to every form of cultivation. In addition there was also a large private agricultural research institute for each of the important estate crops—sugar, coffee, tea, rubber, and tobacco. The sugar experiment station at Pasoeroen was a typical example of the private agricultural research institutes. The institute was established in 1893, and was supported entirely by private sugar companies and sugar growers. The annual levy for the purpose of research was £114,000. The staff consisted of 45 Europeans and 135 natives. The institute concerned itself with the investigation of all problems affecting the sugar industry, from the preparation of the land, harvesting of the cane, the extracting of the sugar, and the marketing of the sugar abroad. Its greatest triumph was the production by cross-breeding of a new variety of cane (No. 2478), which exceeded the yield of all other varieties hitherto used in Java in weight of cane and sugar content. The institute had also developed methods of control of various fungus and insect pests which had threatened the cane industry from time to time. Since the establishment of the station the yield of sugar per acre had increased by 55 per cent. The institute not only had a central organisation for investigating scientific problems of cane production and the chemical and mechanical processes involved in sugar extraction, but maintained a group of advisory officers in the principal cane districts to link up planters with the central research station. It was probably the best organised and most utilitarian research station in the world.

Other industries in Java, said the professor, such as rubber, tea, coffee, and tobacco growing, had organised similar types of institutes, which were proving very helpful in increasing the yield per acre and improving the quality of the product. It was interesting to note also that in the small state of Northern Ireland the farmers had contributed £80,000 towards the endowment and establishment of an agricultural

research station at Hillsborough, near Belfast, and a group of Scottish farmers had contributed £23,000 towards the cost of maintaining a plant breeding station at Corstorphane, near Edinburgh. The British Government had made substantial contributions to the Dairy Research Institute at Reading University, and as the result of recent researches there had been a great improvement in the milk supply to the city, and a considerable increase in the production of dairy farms.

In South Africa the losses of cattle, sheep, and horses through sickness had formerly been enormous, but during recent years the losses had been almost entirely eliminated through the investigational and agricultural work of the Veterinary Research Institute near Pretoria. It was estimated that the monetary value of the Research Institute under Sir Arnold Theiler, in reducing stock disease, had paid the whole cost of agricultural research and education in South Africa since the inception of the Union Government 16 years ago. The South African Government had done much to improve the Merino wool production by encouraging the importation of high-class Merino sheep from Australia, and in providing a large staff of investigators to assist in raising the standard of wool production in the country. The quality and quantity of the wool were improving year by year. The total number of sheep was rapidly increasing, the quality of the wool was improving, and losses by disease had been greatly reduced.

South Africa was making wonderful strides in the export of fresh fruit to London. It was a profitable industry. Stringent grading and packing regulations at the packing sheds, and the rapid transport of fruit by the Union Castle steamers, enabled the fruit to be placed on the London market in first-class condition. There was a finely-equipped laboratory to investigate problems relating to the cold storage of fruit, which had been provided by the Union Government at Cape Town for co-operative research between the low temperature research station at Cambridge and the Department of Agriculture of South Africa. An officer accompanied consignments of fruit on the voyage, and took records of temperatures, humidity, &c., during the trip.



MR. F. B. McBRYPDE, B.A., LL.B.

school for officers at Duntroon, Mr. McBryde enlisted for active service, and became an officer in the 50th Battalion. He saw much active service in France, and returning to Britain in July, 1919, he attended the law lectures of the Council of Legal Education at the Inns of Court.

On his return to Adelaide Mr. McBryde resumed his duties at the Supreme Court. On several occasions he has performed the duties of Acting Public Trustee, Registrar of Companies, and Deputy District Registrar of the High Court of Australia. At present he is Acting Master of the Supreme Court in the absence on leave of Major W. L. Stuart.

Mr. McBryde has always taken a keen interest in sport. He played for Glenferrie Football Club, and was a leading oarsman, having been associated with Adelaide Rowing Club for many years.

He is a member of St. Peter's Old Collegians' Association Lodge of Freemasons and of the Commonwealth Club.

On a holiday visit to South Australia Mr. Mark Mitchell, son of Sir William Mitchell, who is studying bio-chemistry at Cambridge, reached Adelaide on Saturday by the Naldra. In England Mr. Mitchell purchased the motor launch Grika, which was used in patrol work on the English coast during the war. The vessel was shipped to Australia on the steamer Zoro-dale.

ADV. 24-1-27

His Honor Mr. Justice Angus Parsons is in New York and much impressed by American hospitality. He has been entertained at a luncheon where he met twenty judges and eminent lawyers. His son, Mr. Paul Parsons, was amongst the guests.

ADV. 22-1-27

SCIENCE AND AGRICULTURE.

Dr. Richardson, Director of the Waite Research Institute, had a fascinating story to tell on his return to Australia after his travels abroad. His object in visiting different countries was to investigate the progress of agricultural research and education, and his enquiries elicited the fact that wonderful results have been achieved. The systematic application of science to industry is a comparatively recent development, but so beneficial has it proved that it has been extended to practically every branch of production. In no department is it more efficacious than in the different branches of agriculture. In this connection the field for its operations is a wide one, and the need for it is particularly urgent. There has long existed among certain classes of economists, taking their cue from Malthus, a fear that population is multiplying at a greater ratio than food supplies, and that in the near future the race will be confronted with the horrors of perpetual shortage. If the means of production had not been susceptible of improvement the position even now would be serious. But in the light of what has been accomplished we can place hardly any limit to the capacity of the earth to make provision for all her inhabitants. It may be that a time will come when the words, "All her harvests all too narrow" will correctly describe the unhappy lot of man, but it will not be in the near future. More likely is it that as the demand for enlarged supplies becomes more pressing science will have won such splendid victories over hostile conditions that the poet's dream of "every deep ravine a garden, every blazing desert tilled," will be a literal and accomplished fact. The wheat belts have been largely extended as new varieties of wheat have been evolved and new methods of cultivation adopted, and facts such as those gathered by Dr. Richardson must stimulate enterprise which may fairly be expected to give yet more surprising results. The production of the Marquis variety of wheat in Canada by Dr. Saunders, as Dr. Richardson told a representative of "the Advertiser" in an interview reported in our columns, "has displaced all other varieties, and is spreading to the wheat-growing regions of the United States. It is estimated that the production of this new variety has increased the annual yield by over 20,000,000 bushels." Wonderful as this result appears, it is not more so than that reported to have been attained in Sweden, where, in consequence of the production of a new variety of wheat that is prolific, hardy, and early maturing, crops have been trebled, during the past twenty years. Nor is the record in Australia insignificant. The evolution of rust-resistant grain, and the partial triumphs of "dry farming," stand to the credit of science as applied to primary production in this country. Wheat-growing is, of course, only one branch of agriculture which has profited by the wise union of science and industry. Dr. Richardson's account of the success of the cross-breeding of sugar cane in Java would in itself be sufficient to justify a considerable outlay of funds for experimental purposes. Australia is particularly interested in any means which will assist in the improvement of its primary industries, and the best kind of improvement is that which

NEWS 22-1-27

ADELAIDE UNIVERSITY

£20,000 for New Library

The announcement that Mr. T. E. Barr Smith had offered the Council of Adelaide University £20,000 for the erection of a library building is most gratifying to the University authorities.

In making his gift Mr. Smith stipulates that the library building shall be completed within five years.

The site for the proposed library building is where the tennis courts are located at the rear of the present library.

For some time the necessity for increased accommodation has been apparent to the library committee, whose members are naturally elated at this most generous gift.

Last year nearly 4,000 new volumes were placed on the shelves of the library. The library consists of works of special value to the professional and teaching staff, as well as to the students.

The bulk of the books are for use in connection with research work, and in the main consists of periodicals of a technical character. This year the grant from the University for the purchase of books amounts to about £2,000. Most of it will go into magazines.

The reason for this is that practically every discovery appears in magazines or the proceedings of societies, the same information not being given in book form until much later.

On the arts side magazines are not so all-important. The library at present comprises more than 70,000 volumes.

NEWS 22-1-27

Deputy Master of Supreme Court

Mr. Frederick Balfour McBryde, B.A., LL.B., deputy master of the Supreme Court, was educated at Scotch College, Melbourne, and at St. Peter's College, Adelaide.

When he matriculated at Adelaide University Mr. McBryde decided to enter the legal profession, and he was articled to Messrs. Knox & Hargrave. He had a brilliant career when he continued his studies at the University, and literally swept the decks, with honors in physiology, physics, literature, and law.

He obtained the degree of Bachelor of Laws in 1912, when he was only 20 years of age, and had to wait for admission to the Bar until he had reached the age of 21 years. Later he graduated in arts.

In March, 1913, Mr. McBryde was appointed associate to Sir George Murray (Chief Justice), who was then Mr. Justice Murray. When His Honor succeeded Sir Samuel Way as the head of the judiciary he continued in that capacity until he was appointed Deputy Master.

Having received a commission in the

MAIL 22-1-27

Versatile South Australian

If Dr. Herbert Basedow be successful in his candidature for Barossa at the forthcoming elections, he will sit in the House of Assembly for the same district as his father represented for many years.

Dr. Basedow, who is on the sunny side of 50, was born at Kent Town, South Australia. He was educated at Prince Alfred College, Adelaide School of Mines, Adelaide University, and the Universities of Heidelberg, Gottingen, Zurich, and Breslau. He has a remarkable list of aca-



DR. H. BASEDOW

demio letters to his name, which include M.A., M.D., Ch. D., Ph. D., and B. Sc. He is also an F.G.S.

Rarely can any professional man claim as the versatile doctor can to be a medical practitioner, scientist, consulting geologist, authority on the aborigines, author, and other things.

The doctor is perhaps most widely known for his exploration work in the remote interior of this continent.

REG 24-1-27

Professor T. G. B. Osborn, in pursuance of his investigations into plant life problems, on behalf of the Council for Scientific and Industrial Research, recently visited New South Wales. He returned by the express on Saturday morning. He was accompanied by Mrs. Osborn.