

TEACHERS' RALLY.

Value of Agricultural Education.

Instructive Lectures.

Two interesting addresses were given on Monday night at the annual public meeting of the South Australian Public Teachers' Union at the Teachers' College both being on the value of agricultural education. The speakers were Professor A. E. V. Richardson and Mr. W. T. McCoy (Director of Education), and they referred to the stimulus given to this all-important work in other countries, and stressed the necessity for greater attention being given to it in Australia. There was a large attendance, over which the president of the union (Mr. R. A. West) presided.

Developing Citizenship and Resources.

Professor Richardson prefaced his remarks by saying agricultural education was justified from the points of view of the development of the country's resources, and the development of a high type of rural citizenship. Agriculture was a remarkable occupation because the conditions of country life were peculiar in their contribution to health, their stimulus to personal initiative, and their fostering influence on that spirit of individualism upon which rested free institutions and democratic government. It was the most important industry of Australia, and it was the only considerable calling in which the home was in intimate contact with the business. Farming, dealing as it did at every step with the subtlest laws of Nature, was capable of indefinite improvement as soon and as rapidly as the findings of science were applied to its affairs, making a private as well as a public side to the development of agriculture. Among those countries where systematic and organized instruction in agriculture had been in vogue for several generations, and where opportunity had been given to thoroughly testing its value, the United States stood pre-eminent, for its agricultural colleges and experiment stations had become the most unique, useful, and popular group of educational institutions in the country, and received the widest possible support from all classes of farmers. The fundamental purpose of agricultural education was the development of agriculture as a productive occupation, and the agricultural people as an important part of the social and politic fabric of the nation, and consequently the improvement of agriculture until it was profitable and highly productive, and until the rural districts were comfortable and rural people educated.

Comfort of Farming.

Dr. Richardson said that agriculture was not only a business but it was a mode of life as well, and it must afford its devotees the same comforts of life as are obtainable in other occupations. Farming would never come fully into its own until farmers learned to build suitable and comfortable houses for themselves and their children, and installed some of the conveniences that were regarded as essential in every city home. Future farmers, the young men and young women who were to live upon the land and till the soil, should be given an education that would not only make them efficient in a business way, but would make for good citizenship as well. It did not matter much what form the non-vocational part took, provided it was something that developed human faculties outside vocational needs and only if it served to broaden rather than narrow, which was the inevitable consequence of an exclusive technical training. In Denmark this feature was very strongly emphasized in agricultural education. If this development of agriculture were merely the concern of the farmers, they might be left to provide it for themselves, but in the last analysis the development of agriculture was a public question, and any money spent on it was an investment in the safest bank on earth—the soil of the Commonwealth, and the people on whom the nation must depend for its management. For the young modern farmer, an agricultural education was necessary, because modern farming required the outlay of a considerable amount of capital for the purchase of land and equipment, and the young man who engaged in it would require at least as much training and managerial ability as he who now engaged in business in the city. (Applause.) The Government had realized that a certain food supply was the most urgent national problem, and that scientific agriculture afforded the best method of fully utilizing the land resources, and for these reasons, agricultural education had been organized with a thoroughness of detail characteristic of the nation. But nowhere in the world had science been applied to agriculture with better results than in the case of rice and silk production, the two staple articles of Japan.

"Australia Lagging Behind."

Mr. McCoy said he learned abroad that in many respects South Australian schools

especially the primary schools, could hold their own, but their teaching of elementary science, drawing, physical culture, and woodwork was much below the standard of much that he saw. In no part of the world, however, did he find infant schools where the work was so uniformly good as in their own, and this remark applied to much of the work in our central schools. One of the things that had made a deep impression was the unbounded belief of English-speaking people, especially the people of Scotland, Canada, and the United States—in education, and the large sums of money spent to back that belief. Their teacher training institutions and their palatial schools and their fine equipment had no parallel in this country. One of the principal objects of his mission was to ascertain what attention was being given to the teaching of agriculture in the various schools. The results of his enquiries were both encouraging and discouraging. It was encouraging to find that that particular work in their best primary schools was quite equal to the best he saw abroad.

In America.

The speaker said that in America, however, no effort was spared to teach the boy that farming could be made a profitable business, and no less than 3,600 high schools in the United States alone offered a course extending over four years to fit youths at the age of 18 to become successful farmers, while the universities did their part by recognising that a pupil who had successfully passed through a four-year course in a high school was qualified to enter the university. The outstanding features of agricultural education in the high schools abroad were:—The stress laid on the teaching of science; the practical nature of the instruction through either supervised farm practice or the "home project" method; the high qualifications of the teachers of agriculture in the secondary schools. They were all university graduates in the School of Agriculture, and the large number of high schools which operated an agricultural department. Great stress was laid on the teaching of science, and all of the schools with agricultural departments had well-equipped science laboratories in which so much of the sciences of biology and botany, bacteriology, and mycology, geology, and the chemistry of soils was taught, as to enable the budding farmer to recognise, and often to solve, many of the difficulties which he would meet with in his future work. The practical work was nearly all done at home, the view being held that the time at school was much too short to spend any portion of it in acquiring manual dexterity in farming operations which could be better done at home under the tuition of the father.

Both speakers were accorded a hearty vote of thanks, and musical items were given by the Misses Evelyn Morley, A.M.U.A., Jean Berry, and Phyllis Webb.

ADV. 21.8.28

Agricultural Education.

Dr. A. E. V. Richardson delivered an address on "The Objective and Methods of Agricultural Education." He said all sections and industries appreciated the value of education. All the great progressive countries had found that a complete system of agricultural education was justified, with a view to the development of the country's material resources and of a high type of rural citizenship. Agricultural education was important because the conditions of country life were peculiar in their contribution to health, their stimulus to personal initiative, and their fostering influence on that spirit of individualism upon which rested free institutions and democratic government. Agriculture was the most important industry in Australia, and it was the only calling in which the home was in intimate contact with the business, so that all members of the family lived in the atmosphere of the occupation. The art of farming dealt at every step with the most subtle laws of Nature and was capable of indefinite improvement. In agricultural education the United States stood pre-eminent, for the annual appropriation for that form of education amounted to £12,000,000. In addition to recognising that farming was a business it was appreciated that it was a mode of life, and those who took part in it were entitled to the same comforts as the people who lived in the cities enjoyed. There was no reason for the farm homestead not possessing all the amenities which were attached to the city home. The whole question was one of national importance, and the young farmer needed agricultural education because modern farming required the outlay of a considerable amount of capital for the purchase of land and equipment, and the young man who engaged in it would require at least as much training and managerial ability as he who now engaged in business in the city. The young farmer must fight against more numerous and destructive insect and fungus pests than any farmer preceding him, and new pests and noxious weeds were appearing every year. He also faced new problems in farm management, because he had to purchase land at much higher values than those of a generation ago, and much of the land had depreciated in fertility as a result of improvident cropping in the past, and he required a more extensive knowledge of the technical, scientific, and business aspects of agriculture than the farmer of

ANIMAL HEALTH.

At a meeting of the State committee of the Commonwealth Council for Scientific and Industrial Research held on Tuesday, the director of the Imperial Bureau of Animal Health, London (Sir Arnold Thieler), met a number of leading South Australian pastoralists, including Messrs. M. S. Hawker, A. J. Melrose, P. A. McBride, W. S. Kelly, R. T. Melrose, and P. H. Jones, chairman of the Central Agricultural Bureau. Members of the committee present were:—Professors T. Brailsford Robertson, Harvey Johnston, J. A. Prescott, and Kerr Grant, Dr. A. E. V. Richardson, director the Waite Agricultural Research Institute, Dr. W. A. Hargreaves, and Messrs. E. H. Bakewell, W. J. Hill, and E. V. Clark (secretary). Sir Arnold left for Mount Gambier last night, and will spend to-morrow and Thursday there. On Friday he will visit the Kybybolite Experiment Farm, and will return to Adelaide on Saturday. On Monday he will be present at the cattle sales at the Abattoirs, and will leave for Burra in the afternoon. At Burra and Mount Bryan on Tuesday next he will inspect Merino flocks and stud sheep, and will visit Clare the following Wednesday. On August 30 he will meet members of the Stockowners' Association.

a generation ago. He must face these problems not only with experience, but with science as his ally, and his intelligence broadened by the best education. The striking feature of modern agriculture was its progressive character, for it was seeking to add to the advancement of knowledge of crops and livelihood through the medium of experimental enquiry. The introduction of superphosphate, for instance, had increased the Australian wheat yield by £7,500,000 per annum, and by labor-saving machinery they were able to do in three minutes what had taken three hours before. On the other hand, Farrar, the pioneer wheat breeder, had changed the entire color and quality of great wheat fields. The lecturer explained the results of the teaching of agriculture in other countries, including Denmark, Japan, and the United States. He said the lessons to be learned by Australia were that money invested in agricultural education and research and extension work was returned many times over in the form of increased agricultural production. To develop an efficient system of agricultural education they must begin from the top of the educational ladder—the University—and work down through the agricultural colleges and high schools. The problem of agricultural education resolved itself into the problem of providing a sufficiency of trained teachers, agricultural specialists, research workers, and extension workers, and of using them in an organised system of instruction, investigation, and extension. They needed trained teachers of agriculture in the colleges and high schools; trained specialists in agriculture for fostering the major and minor agricultural and live stock industries of the State; trained research workers to establish the principles underlying the successful culture of their crops and the feeding and management of the live stock; and in addition, highly trained and tactful extension workers, whose efforts would be directed to the improvement of farming practices, by getting into touch with those farmers whose farms had given but mediocre yields of crops and live stock. Agriculture was of vital importance to Australia and to no State more than to South Australia. He urged those who were really interested in the improvement of the material welfare of the industry to stand four-square behind any satisfactory movement which had for its object the development of agriculture. The lecture was illustrated by lantern slides.

REG. 22.8.28

UNIVERSITIES CONFERENCE

Concluding Session.

MELBOURNE, Tuesday.

At the concluding session to-day of the Australian Universities Conference it was decided to request the trustees of the endowment fund of the Council for Scientific and Industrial Research to provide an annual travelling scholarship in pure science. It will be suggested that the scholarship should not limit its holder to applied research, nor to conditions of future engagement by the Council for Scientific and Industrial Research.

The conference held that tenure for a limited period of professorial chairs other than those of special research, was not in the best interests of universities.

Sir Henry Barraclough (Sydney) presented graphical diagrams showing the sources from which a sovereign of university revenue was received, and the directions in which it was expended. He argued that this unit of university revenue should be derived in equal proportions from Government grants, private endowment and fees. Comparing the finances of Sydney University 25 years ago with those of to-day, he said that the amount spent on the teaching staff was to-day in proportion considerably less. The expenditure on the non-teaching staff, however, considered on the same basis, had greatly increased.

On the suggestion of Tasmania it was resolved to reopen with the Federal authorities the question of preference to university graduates in certain Federal public service appointments.

The conference considered that broadcasting should be controlled in Australia, as in England, by a trust, whose interest would be to give the best possible service to the community and not to make as much money as possible.

In reply to a question by Western Australia, whether it was preferable for the university or the Education Department to conduct public examinations, the conference considered that the universities should act on the advice of a body which included representatives of both the university and the schools.

The conference approved of the principle of establishing a diploma of public administration. It recommended that instruction in statistics should be available for students who had studied mathematics for a year at the university.