

NEW ZEALAND DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH

THE following staff changes have been announced by the New Zealand Department of Scientific and Industrial Research.

Mr. W. A. Joiner

MR. W. A. JOINER retired recently as deputy director-general of the New Zealand Department of Scientific and Industrial Research. Mr. Joiner, who was born in Scotland in 1902 and moved to New Zealand when he was nine, was educated at Wellington College and Victoria University of Wellington, where he was awarded a senior scholarship in chemistry, a Joe Jacob Joseph scholarship and a National Research scholarship, and gained his M.Sc. with honours in chemistry. Appointed as assistant analyst in the Dominion Laboratory in 1923, he specialized in fuel research, and his work on the carbonization of Waikato coals led to the establishment of a briquetting plant at Huntly in 1930. In 1934 he took a postgraduate course in chemical engineering at University College, London, and also investigated problems of coal hydrogenation at the Fuel Research Station and the Imperial Chemical Industries Works at Billingham. In 1935 he was awarded a diploma of chemical engineering by University College, London. On his return to New Zealand, he initiated a survey of the country's coal resources. In 1937 he was appointed chemical engineer in the Dominion Laboratory, and in 1941 assistant director. One of his major projects was the development of a special grass-seed dryer to overcome the problem of the poor germination of such seed when exported in a moist condition. He also played a leading part during the Second World War in the developing of mobile gas producers and in the dehydration of fruit and vegetables. In 1946 he succeeded Mr. Andrew as director of the Dominion Laboratory, and in the following year was appointed assistant secretary of the Department of Scientific and Industrial Research, in charge of the branches dealing with chemistry and geology. He became deputy secretary in 1950.

Dr. E. I. Robertson

DR. E. I. ROBERTSON, director of the Geophysics Division, has been appointed assistant director-general of the Department of Scientific and Industrial Research. Dr. Robertson was educated at Hutt Valley High School and Victoria University College, from which he graduated M.Sc. He was awarded a Shortcliffe fellowship, but because of the Second World War, during which he served in the Navy for four years, he delayed going to the University of London until 1945. There he gained his Ph.D. in geophysics. Returning to New Zealand in 1948, he took up a position as a geophysicist in the Department of Scientific and Industrial Research. In 1951 he was appointed director of the Geophysics Division of the Department, in which capacity he was responsible for scientific programmes in Samoa, Rarotonga and at Wairakei. During the International Geophysical Year, 1957-58, he played a leading part in New Zealand's contribution to the work, being chairman of the Interdepartmental Committee. Dr. Robertson has been the scientific adviser to the New Zealand Navy for several years, is chairman of the Ross Dependency Research Committee, and is a Government representative on the Council of the Royal Society of New Zealand.

Dr. F. F. Evison

DR. F. F. EVISON, superintendent of the Seismological Observatory, has been appointed director of the Geophysics Division. Dr. Evison was born in Christchurch and educated at the Victoria University of Wellington, where he gained his M.A. and B.Sc. degrees. In 1949 he went to the Imperial College of Science and Technology, London, and was awarded a Ph.D. for his work in geophysics and a diploma of the Imperial College in 1950. On returning to New Zealand he joined the staff of the Geophysical Survey Section of the Geophysics Division, and in 1960 was appointed superintendent of the Division's Seismological Observatory. In 1956 Dr. Evison was awarded a Nuffield fellowship at the University of Cambridge. He has made a special study of the Earth's crust in Antarctica and New Zealand, using earthquake waves, and has investigated the cause of earthquakes. In 1963 Dr. Evison was visiting professor in geophysics at the University of Minnesota.

Dr. R. D. Adams

DR. R. D. ADAMS has been appointed superintendent of the Seismological Observatory. Dr. Adams was born in Wellington and educated at the Victoria University of Wellington, where he gained both his M.A. and M.Sc. degrees with honours. Appointed to the New Zealand Defence Science Corps, he went to the University of Cambridge, where he was awarded a Ph.D. for his thesis on seismology. Following his return to New Zealand, Dr. Adams worked for two years at the Naval Research Laboratory, Auckland, before joining the staff of the Seismological Observatory in 1960, as a scientific officer. Dr. Adams has carried out a magnetic survey of the region between New Zealand and McMurdo Sound, Antarctica. He has undertaken research on problems of earthquake mechanism, and investigated the use of dispersive earthquake waves to examine the Earth's crustal structure in the New Zealand region.

Dr. L. Corkill

DR. L. CORKILL, director of the Crop Research Division of the New Zealand Department of Scientific and Industrial Research, has been appointed director of the Department's Grasslands Division, in succession to the late Dr. P. D. Sears. Dr. Corkill was educated at Auckland and Massey Universities, where he gained both B.Sc. and M.Agr.Sc. degrees. Appointed as a plant breeder in the Grasslands Division, he worked under the general direction of Sir Bruce Levy and was responsible for the development of many new and improved strains of pasture plants. He was associated particularly with short-rotation ryegrass and with long-rotation ryegrass, which has just been released to farmers. In 1957 Dr. Corkill was awarded a D.Sc. by the University of New Zealand for his researches on plant breeding. Later that year he was appointed director of the Crop Research Division. In 1958, together with Dr. Sears, Dr. Corkill visited Japan under the auspices of the Food and Agriculture Organization to advise the Japanese Government on pasture establishment on new land previously under scrub and on a breeding programme for plants best suited to this environment.

Dr. H. C. Smith

DR. H. C. SMITH, senior principal scientific officer in the Plant Diseases Division, has been appointed director of the Department's Crop Research Division. Dr. Smith was educated at Massey Agricultural College, where he gained an M.Agr.Sc. degree, specializing in plant pathology. In 1951 he was awarded a National research scholarship at the University of Cambridge. There he undertook research work for his Ph.D. on *Phytophthora*. On completing his Ph.D. degree in 1953, he returned to New Zealand and was appointed mycologist at the Plant Diseases Division sub-station at Lincoln. In 1960 Dr. Smith was awarded a Canadian National research fellowship, which he held at the Canadian National Research Council's Plant Research Institute at Ottawa, where he studied virus diseases of grasses and cereals, and in particular barley yellow dwarf virus which he had already been investigating in New Zealand. His work on this disease has led to the development of effective control measures of great economic significance to barley and wheat growers in New Zealand.

Dr. J. M. Hoy

DR. J. M. HOY has been appointed director of the Entomology Division, Nelson, in succession to the late

Dr. W. Cottier. Dr. Hoy was educated at Otago Boys' and King's High Schools, Dunedin, and at Lincoln College, where he gained B.Agr.Sc. in 1942. In 1943 he became entomologist in charge of malarial control for the Royal New Zealand Air Force in the south-west Pacific area. In this capacity he spent a year in the forward Pacific war area. On his return from overseas in 1945 he joined the Entomology Division of the Department of Scientific and Industrial Research as assistant entomologist, Nelson, where he was concerned with the systematic investigation of the larvæ of grass grubs and the possible utilization of nematodes to control pasture insects. In 1953 Dr. Hoy was appointed officer-in-charge of Entomology Division's sub-station at Palmerston North. This unit made an intensive investigation of manuka blight, and Dr. Hoy was responsible for the discovery that the causal insect, *Eriococcus*, was Australian in origin. For his work on scale insects he was awarded a D.Sc. by Lincoln College early in 1964. In March 1963 Dr. Hoy joined the headquarters staff of Entomology Division at Nelson to lead the research team concerned with present work on the control of grass grub and subterranean grass caterpillar. Dr. Hoy is immediate past-president of the New Zealand Entomological Society and is vice-president of the Nelson Branch of the Royal Society of New Zealand.

ORGANIZATION AND ADMINISTRATION OF INDIAN SCIENCE

IN successive annual reports on the Commonwealth Scholarship and Fellowship Plan the Commonwealth Education Liaison Committee has expressed concern at the reluctance of some scholars to return home on completion of their tenure. This was discussed at some length in the third report, and the difficulty appears to have become more acute during the past year. It is appreciated that the temptation to remain in Britain, for example, may be considerable when the scholar can see no immediate prospect of obtaining employment in his home country at the level he regards as suitable to his qualifications, or when opportunities for further research are severely limited at home.

Some light is thrown on this reluctance to return home, so far as India is concerned, by a memorandum on Indian Scientific Policy submitted by the Institute of Political and Social Studies to the Review Committee of the Council of Scientific and Industrial Research on National Research Laboratories, and published in *Minerva* (11, 519; Summer, 1964). It is also illuminated by the comments which Dr. K. A. C. Mendelssohn made in a broadcast talk "Science in India" discussing his visit to India in 1963, which was published in *The Listener* for September 24 (72, 457; 1964).

The main submission of the Institute of Political and Social Studies is that the Review Committee, to which its memorandum is addressed, should concentrate on creating a suitable climate for serious scientific research in the national research laboratories. It is considered in the memorandum that the previous Minister for Scientific Research and Cultural Affairs was at least partly aware of the problem, and it quotes his references, when addressing a recent conference of scientists and educationalists, to the lack of an atmosphere of activity sustained by critical appreciation and the existence of a bureaucracy in the scientific field, tending to a false sense of prestige due to status and office. These criticisms fully confirm Dr. Mendelssohn's observations. In general, the authors of the memorandum believe that the organization of research has proliferated too widely and rapidly, with excessive attention to buildings and equipment, etc., compared with

training and expanding the initial nucleus of research staff. There are now 27 national laboratories and other allied research institutions, housed and substantially equipped and with further facilities in prospect; in spite of this, the memorandum asks the fundamental questions whether a suitable research leadership has emerged in each of these institutions, and whether a climate has developed which spurs the research worker to do his job well. The whole implication of the memorandum is that neither question can be answered in the affirmative without hesitation or reservations.

The Institute of Political and Social Studies, however, goes further and directs attention to specific points. It questions whether the laboratories are recruiting scientific workers, particularly in the senior grades, who combine aptitude for research with basic competence in the particular field. Enquiry here could go far to explain the reluctance of Indian scholars and Fellows to return from abroad. The mere fact that the memorandum suggests that it would be worth while to consider setting up a high-level selection body for recruiting scientists on the pattern of the Union Public Service Commission indicates that all is not well with present methods of recruitment. It also directs attention to the vital importance of ensuring that the research worker can rely on obtaining guidance and on critical appreciation of his efforts. It asks key questions about direction of the laboratory, both as regards the formulation and study of problems and the publication of results.

The questions about relations with industry, about the establishment of regional research laboratories, about duplication at the national level, are both searching and constructive. The memorandum gives firm support to the younger workers; like Dr. Mendelssohn, the Institute has evidently formed the opinion that the younger men do not always receive a fair chance and that conditions are not conducive to serious research by many competent scientists. The core of its criticism is, in fact, that the direction of many of the laboratories is often defective, if not incompetent, and that this position is at least partly due to the form of organization under the Council of Scientific and Industrial Research.