

NEWS and VIEWS

Microbiology in the Department of Agriculture,
Canada : Dr. A. G. Lochhead

DR. A. G. LOCHHEAD retired on June 21 from his post as chief of the Bacteriology Division, Science Service, Department of Agriculture, Ottawa, Canada, to devote his full time to research. Dr. Lochhead studied first at McGill University; during 1912 he completed the requirements for the Ph.D. degree at the University of Leipzig, but the outbreak of the First World War not only prevented his receiving the degree but also resulted in his internment in Germany for the duration of the War. However, his academic work and thesis were accepted by McGill University on his return to Canada in 1918. After lecturing in bacteriology at Macdonald College, McGill University, he left academic work for several years and gained valuable experience in industry by joining the staff of the Canadian Milk Products, Ltd., Toronto, and the Malt Products Company of Canada, Ltd., as bacteriologist-chemist. For a year he was lecturer in biochemistry in the University of Alberta. In 1923 he joined the Department of Agriculture as chief of the Division of Bacteriology, Experimental Farms Service. With the amalgamation in 1938 of the Dairy Research Division of the Dairy and Cold Storage Branch, he became chief of the Division of Bacteriology and Dairy Research. Through his leadership the Division has become widely known as a centre of fundamental research in soil microbiology, especially in regard to the relationship between the soil microflora and plant roots, and for his pioneering investigations on the classification, nutrition and growth factor requirements of the bacterial population of the soil. This devotion to the study of the soil microflora has not prevented his attacking other problems in microbiology and achieving recognition in specialized fields such as that dealing with the description, classification, nutrition and metabolic activities of sugar-tolerant (osmophilic) yeasts, with the microbiology and fermentation of honey, with the etiological agents of foulbrood of the honey bee and with halophilic bacteria. His rare critical faculties, his keen logic and his acute powers of observation have been combined with a most enviable talent for writing; his gentle and courteous treatment of everyone with whom he comes in contact has made him loved by all. He was president during 1953-54 of the Canadian Society of Microbiologists.

Dr. H. Katznelson

DR. H. KATZNELSON, principal bacteriologist of the Bacteriology Division, Science Service, Department of Agriculture, Ottawa, Canada, has succeeded Dr. A. G. Lochhead. Dr. Katznelson was born in a Russian village near the Polish border in 1912. At the age of eight his family settled in Vancouver, B.C., Canada. Katznelson studied bacteriology at the University of British Columbia, where he specialized in soil bacteriology, and at Rutgers University. This was followed by a year at Cornell University, and at the outbreak of the Second World War he returned to Canada to join the staff of the Division of Bacteriology and Dairy Research, Science Service, under Dr. Lochhead. Although Dr. Katznelson's main interest was in soil microbiology, he was able to carry out studies on a variety of problems ranging from antibiotics and bacterial viruses to diseases of the honey bee. His contributions to the control of these

diseases, including the use of fumagillin to control Nosema disease and of antibiotics such as terramycin for American and European foulbroods, are well known. During the War he was engaged, in co-operation with the National Research Council of Canada, in studies on the microbiological production of 2,3-butylene glycol, a precursor of synthetic rubber. After this he turned to bacterial nutrition and physiology, with a few sorties into dairy bacteriology, where he and others on the staff demonstrated the significance of bacteriophage and antibiotics in cheesemaking. His own interest in bacterial viruses led to the development of a diagnostic procedure for detecting bacterial plant pathogens in seed which is used in various countries. After spending a year studying bacterial metabolism at Stanford University, Katznelson was made head of the Unit of General Agricultural Microbiology. He is at present particularly interested in problems of soil microbiology, halophilic bacteria, the metabolism and diagnosis of bacterial plant pathogens, diseases of the honey bee and tobacco fermentation.

Physical Chemistry in the University of the Witwatersrand : Prof. J. O'M. Bockris

PROF. J. O'M. BOCKRIS has been appointed to the newly created chair of physical chemistry in the University of the Witwatersrand, Johannesburg. Prof. Bockris graduated in 1943 from the Imperial College of Science and Technology, London, and continued there, working on electrode processes. In 1945 he was appointed to the staff of the College; for eight years from 1946 onwards he led a large research team on electrochemical problems, and this team carried out work in the following fields: the evaluation of the effect of trace impurities on electrode processes; the evaluation and application of diagnostic criteria in the determination of the mechanism of electrode processes (particularly in hydrogen and oxygen evolution); the technique of quantitative physico-chemical measurements at temperatures up to 2,000° C., leading to the establishment of the ionic nature and detailed lattice structure of the liquid silicates; and the application of statistical mechanical methods in electrochemistry—for example, the absolute calculation of electrode reaction-rates, the theory of salting in, and the mechanism of proton transport. Some work of an applied electrochemical nature was also undertaken, supported by both British and United States government and industrial bodies. During 1953-54 Prof. Bockris held a visiting professorship in the University of Pennsylvania and was later appointed professor of chemistry there. He is co-author of a text-book of electrochemistry, editor of "Modern Aspects of Electrochemistry", and co-author of the *Proceedings* of the International Committee for Electrochemical Thermodynamics and Kinetics.

New National Parks in Great Britain

DESIGNATION orders have been made by the National Parks Commission for the ninth and tenth national parks, the orders being still subject to confirmation by the Minister of Housing and Local Government. The parks in question are the Northumberland National Park, incorporating the Forestry Commission's Border Forest Park, and the Brecon Beacons National Park. The Northumberland National Park comprises most of the upland country of Northumberland, from the Cheviots in the north to the Roman Wall in the south; part of its western