

The author deals first with the physical factors of the meadow environment and secondly biological factors, the two producing a most important and far-reaching complex, admirably presented in diagrammatic form on page 41. It is necessary to give these factors careful study if practical methods for the reduction of injuries are to be worked out. The summary account of the animal groups of the meadow fauna is another interesting and practical phase.

The entomologist, aside from the general discussion of injuries, ecology and control, will find the accounts of different groups of insects occurring in meadows and pastures comprehensive and suggestive. This is particularly true of the Hemiptera-Homoptera, the group with which the author is most familiar. The book contains excellent illustrations and biographical

data concerning numerous species, much of the information resulting from the author's investigations. This book is a handy source of information concerning these numerous important and largely unknown forms. The more technically minded will find here and there long lists of insects taken in various environments. There is also an extended bibliography and an excellent index which adds much to the value of the book.

The book is a valuable contribution to our knowledge of meadow and pasture insects. The author is to be congratulated upon the admirable and convincing presentation, while the publisher has done much to present this information in an attractive form.

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SOCIETIES AND MEETINGS

FUNGI AND FUNGUS DISEASES

FOR the first time at an International Congress for Microbiology a special section was organized to consider fungi and fungus diseases. Dr. R. A. Harper, emeritus professor of botany at Columbia University, and Dr. Fred D. Weidman, professor of dermatological research at the University of Pennsylvania, were co-presidents of this section. Dr. B. O. Dodge, of the New York Botanical Garden, served as convener. Seventy-seven papers were presented. In spite of the fact that many foreign delegates were prevented from attending by the outbreak of the European war, twelve papers were read by foreign delegates representing Belgium, Brazil, Canada, Ceylon, England, Holland, Scotland, Sweden and Uruguay. The large number of papers submitted made it necessary to divide the section into two divisions, and eight sessions were held. Interest in the programs was evidenced by the large attendance at the meetings, and at one session on "Growth Substances" there was "standing room only."

As this was one of the first scientific meetings in which students of animal and veterinary medicine and students of plant pathology participated, a symposium was held on host parasite relationships for the purpose of comparing the processes of fungus infections of plants and animals. It was organized from the point of view of the animal kingdom by Dr. Fred Weidman, of Philadelphia, and the point of view of the plant kingdom by Dr. E. K. Stakman, of St. Paul. Papers were presented discussing: (1) Etiology of pathogenesis; (2) tissue reactions; (3) natural resistance, including immunity. It was apparent that further exchange of views of this sort would prove stimulating to workers in both fields.

On two mornings joint meetings were held with Section II (microbiological chemistry and physiology)

on the subject of growth substances for microorganisms. These concerned mostly the effect of various elements in the nutrition of fungi and bacteria. Under the able direction of Dr. W. J. Robbins, of the New York Botanical Garden, speakers from the fields of chemistry, physiology, bacteriology and mycology were brought together for the discussion of the effects of these elements on the growth of organisms.

Under the direction of Dr. B. O. Dodge another program was devoted to sex, variation and genetics of the fungi, while Dr. M. Levine, Montefiore Hospital, New York City, sponsored a third session on the effects of microorganisms and chemical substances on atypical growth in plants. The latter papers concerned chiefly the production of plant tumors by bacteria or chemical agents. Another session was held jointly with Section I (Variation in Taxonomy) at which the classification and nomenclature of the Actinomyces and yeast-like fungi were discussed in a number of papers. As a result of this discussion it was recommended that a committee be appointed to report at the next congress on the possibility of adopting some uniform nomenclature for the pathogenic fungi.

A number of papers were presented discussing various fungus diseases of man, including four papers on the ringworm infections and two on histoplasmosis. Dr. Carrion, of Puerto Rico, presented a study of the fungi of chromoblastomycosis, and Dr. W. A. E. Karunaratne reported a series of 104 cases of Rhinosporidiosis.

Dr. B. O. Dodge presented one of the main addresses of the general session of the congress on the subject of "Some Problems in the Genetics of the Fungi."

J. GARDNER HOPKINS
J. S. KARLING
Secretaries