

main nutrients hinders recovery from attack by curtailing the production of new secondary roots to replace those destroyed by the fungus. In Australia phosphate is usually the missing nutrient, in England nitrogen. The exceptional severity of the disease in certain southern counties of England in 1942 may have been due in part to leaching-out of nitrates by abnormally heavy rainfall in January. Survival of *Ophiobolus* in infected root and stubble residues is mainly dependent on an adequate supply of nitrogen from the soil, which encourages fresh hyphal growth.

For some years Miss M. D. Glynne has made a special study of eyespot in wheat and barley, and the account she gave of this disease revealed how closely it is bound up with lodging in these crops. Less eyespot occurs on light, well-drained soils than on heavy, wet ones, and the climate of the west and north of Britain favours attack by it more than conditions in the south and east. Yet, because oats are highly resistant and the disease increases with the frequency of wheat and barley in the rotation, eyespot is more prevalent in the eastern than the western half of southern England. In a thin crop the individual affected straws begin to fall over among the upright ones from the end of June, giving the condition known

as 'stragglings'. If the affected crop is a heavy one general lodging is likely to take place sooner or later in long-strawed varieties. In a survey carried out in 1941, lodging caused by eyespot was about as common as lodging due to non-parasitic causes. In addition to direct loss from the disease there may be indirect loss as a result of lodging. Experimental work has shown that in a field with about 60 per cent severe infection, yield is reduced by 30 per cent and there is a marked increase in the amount of tail corn; if lodging occurs the loss is much greater or even complete. Such losses can be minimized by sound rotation or by using short-strawed varieties and feeding them well.

Dr. F. R. Immer, professor of genetics in the University of Minnesota, was warmly welcomed as a visitor at the meeting, and in the general discussion that followed he referred briefly to the programme for plant breeding in relation to disease that is now under way in Minnesota. He expressed surprise at the wide differences in cereal disease problems in Britain and the United States; but entered a word of warning against underestimating the real effect and the potentialities of common but apparently harmless diseases.

NEWS and VIEWS

Research Fellowships at British Universities

THE directors of Imperial Chemical Industries, Ltd., have offered to provide eighty fellowships at nine universities in Great Britain, to be held by senior workers in certain sciences. The scheme is announced to operate for an initial period of seven years, and the fellowships will be of the average value of £600 a year, though the universities will have power to determine the emolument for each particular appointment. The subjects to which the fellowships are to be devoted are laid down as physics, chemistry and the sciences dependent thereon, including chemotherapy. The administration of the scheme rests wholly with the universities, which will select and appoint the fellows, subject only to such conditions as to duties and tenure as the universities themselves impose. No conditions whatever are attached by I.C.I. to the tenure of these fellowships. The fellows will be members of the university staffs, and will be concerned only with the duties laid upon them by the universities. Their primary work will lie in research; but they must also take some part in university teaching. It is intended not to relieve the universities from the cost of maintaining any part of their normal work, but to enable them to add to what they already do. The universities to which this offer has been made comprise the larger metropolitan universities and those which have a close geographical relation to the main centres of the Company's production. Twelve fellowships have been offered to the Universities of Oxford, Cambridge and London, eight to the Universities of Glasgow, Edinburgh, Manchester, Birmingham and Liverpool and four to the University of Durham.

The purpose of the directors of Imperial Chemical Industries, Ltd., in instituting this scheme is to strengthen the general provision in British universities for scientific teaching and research. It is in-

tended to implement the Company's view that academic and industrial research are interdependent and complementary, and that substantial advances in industry cannot be looked for without corresponding advances in academic science; and the main purpose is the strengthening of university scientific departments in whatever way each university thinks to be best. A rational policy of this character, together with a wise selection of men both as regards capabilities and tenure of office, will lead, it is thought, to the emergence of a body of men capable of taking high academic or industrial positions, thereby advancing academic and industrial research. This it should certainly accomplish, for the scheme is so wide in its scope, and the universities are given so free a hand in its working, that most of the limitations usually inherent in trusts and endowments are avoided. The task is now before the selected universities, while preserving scrupulously their independence, so to select recipients of these fellowships as to justify the belief in the importance of university research which has led to their establishment.

The Society for Cultural Relations

THE Society for Cultural Relations between the Peoples of the British Commonwealth and the U.S.S.R., known more widely by its briefer title S.C.R., has just completed its first twenty years of activity and has issued a concise and very interesting report on its work during the period. It is difficult now to recapture the atmosphere of 1924, when the sufferings caused by the Revolution and the Civil War were still fresh in people's minds, and only relatively few recognized the importance of trying to understand what was going on in Russia and of breaking down the barriers that threatened to isolate that country from the Western world. A small but distinguished group of people founded the Society and organized an exhibition of Soviet art, books and

magazines; a Science Section was formed under the chairmanship of Sir Richard Gregory and a Press Committee of British and Russian journalists met. Later, various other sections were formed and the Society steadily increased in membership. Each year has seen new developments, and since the War both the status and the influence of the Society have been heightened; it has been recognized that only by keeping exclusively to the one purpose of fostering cultural relations can the Society hope to make a wide appeal. It now has a good library and a panel of lecturers, and it is prepared to deal with inquiries coming within its ambit. We wish the Society continued success in the important and difficult tasks that will confront it in the post-war years.

Indian Famine Inquiry

THE Government of India has announced the following names of the chairmen and members of the famine inquiry commission: Sir John Woodhead, Finance Member of the Government of Bengal 1932-1937, Governor of Bengal during June-November, 1939 (chairman); Mr. S. V. Ramamurti, adviser to the Governor of Madras and formerly director of agriculture, Madras; Dr. W. R. Aykroyd, director of the Nutritional Research Laboratory, Coonoor; Khan Bahadur Mien Afzal Hussain, formerly principal of the Agricultural College, Lyallpur; Sir Manilal B. Nanavati, president of the Indian Society of Agricultural Economics, deputy governor of the Reserve Bank of India during 1936-1941, and an authority on sociological and agricultural problems; Mr. R. A. Gopalaswami (secretary), assisted by Rai Bahadur D. N. Maitra.

Higher School Certificate Biology

THE content and form of the traditional syllabus for the Higher School Certificate examination are frequently influenced by the older point of view that biology, botany and zoology are intellectual disciplines unrelated to ordinary life, and, further, that anything relating to human beings lies in the province of anatomy and physiology in the medical curriculum. Modern opinion is that such studies are closely interwoven with our own lives and that, while they may serve as an introduction to subsequent professional or university courses, they should also form, because of their method and content, an essential part of the education of the ordinary citizen. Some progress has been made in this direction by slight emendations or re-interpretations of existing syllabuses; but a Joint Advisory Committee for Biology was set up by the University of Cambridge in June 1943 to recast thoroughly the syllabuses for the Cambridge Local and Oxford and Cambridge Schools examinations. The Committee included representatives of the teaching profession and of the University of Cambridge, and also had the advice of one of H.M. inspectors of secondary schools, members of the University of Oxford, the Matriculation and School Examinations Council of the University of London, and the Central Welsh Board.

The resulting syllabuses, quite new in content and outlook, are not regarded as definitive, but criticisms are invited and it is proposed to issue a revised edition if, when they have been given a trial, it is found that modifications are necessary. The syllabus of each subject is fully set out and, in zoology, detailed notes explaining the intention of the various parts of the syllabus are provided. The content is arranged for

a course extending over two school years and assumes that 450 periods each of forty minutes are available. A useful feature of the report is that each subdivision of a subject is followed by a suggestion of the approximate number of periods that should be devoted to it. These suggestions, if followed in a reasonable and not slavish manner, should result in a well-balanced course without overweighting particular parts and at the same time allow latitude for individual circumstances. In the opinion of the writer of this note the syllabuses are a welcome improvement on most of those at present in effect and decidedly a move in the right direction, particularly if more attention is given to the individual practical work of the pupils: but—the proof of the pudding is in the eating. Copies of the report can be obtained from the Cambridge University Press, 200, Euston Road, London, N.W.1, price 6*d.* (7*d.* including postage).

Apprenticeship and the New Education Bill

SOME strong criticisms of the raising of the school-leaving age envisaged under the new Education Bill are given in a recent pamphlet on "Apprenticeship for a Skilled Trade" by Mr. F. Twyman, managing director of the well-known optical firm of Messrs. Adam Hilger, Ltd. (London: Charles Griffin and Co., Ltd. 5*s.* net). Thus he says, "Besides tending towards the disappearance of skilled craftsmen and arresting the development of individual boys, the proposed deferment of the school-leaving age will lessen the productive capacity of the nation just at a time when it should be increased". Mr. Twyman speaks in no uncertain terms against the views of those who seem to regard it as self-evident that, schooling being a good thing, the longer it is continued the better; and he claims that there is a general neglect of the fact that at the age of fourteen many normal boys become impatient of learning unless they see some useful result. He believes that the skilled trades can best be satisfactorily recruited through a scheme of apprenticeship commencing at fourteen years of age under which boys would enter the trade with part-time day release to attend school, varying from two days a week at fourteen to one day at eighteen years of age. The scheme would be based upon the following four main premises: (1) industry needs more good craftsmen; (2) these can only be attained by apprenticeship; (3) the apprenticeship contract must embody a curriculum; (4) independent inspection must be provided to ensure that the terms of the contract are fulfilled.

There is good sense in much of what Mr. Twyman says about the need for realism in modern education, and he would probably be surprised to find that a large number of educationists agree with him; indeed, his proposed scheme of apprenticeship is essentially educational in character, since the young apprentice, instead of wasting his early years in making tea and running errands, would from the start learn practical subjects in the works under strict supervision. Mr. Twyman's essay certainly suggests a valuable scheme for co-operation between school and industry, which should fittingly be examined at the present time.

Bureau of American Ethnology

IN spite of its increasing concern with the war effort, the Bureau of American Ethnology still manages to carry out some of its normal activities (Sixtieth Annual Report: June 1942 to June 1943).