

Problems of Cotton Growing.

A RECENT publication of the Empire Cotton Growing Corporation is a detailed report of the Conference on Cotton Growing Problems which was held in August last at the Shirley Institute, Didsbury, the station of the British Cotton Industry Research Association. The conference was attended by officers of the Corporation and of the Institute, by representatives of the cotton growing countries of the Empire, Egypt, and the Research Stations of Trinidad and Amani, as well as by other workers directly engaged on problems bearing on cotton. The sixteen papers presented, with the discussions thereon, covered much ground and included in their survey problems of manufacture in the factory as well as problems of production in the field.

The main problem, around which all others orientate, is the nature of the characters which go to produce quality in cotton, the raw material of the industry. This subject was introduced, appropriately at the commencement of the conference, by Mr. Peirce. Here is raised a problem which carries back at once to field conditions, the cause of immaturity, that 'curse of Lancashire'—neps. The evidence given by Mr. Bailey from the Sudan indicates a definite relation between nepiness and drought. The discussion ranged over the effect of gins in producing neps, as well as their behaviour in the processes of spinning; and it showed how much there is still to learn with regard to the origin of neps. The subject of quality in cotton was carried a step further by two papers from the Shirley Institute: on uniformity of cotton, by Mr. Underwood, and on the methods of correlating the strength of yarn with hair properties, by Messrs. Foster and J. Gregory.

On the agricultural side many problems were reviewed. The organisation of a seed supply which will retain purity in the crop when grown, as it is in Uganda and Nigeria, by a host of small cultivators, formed the subject of a paper by Mr. Lewin, of Nigeria; the practicability of limiting the number of varieties, in view of the variations of soil and climate found in any single territory, was raised on a reference from the Uganda Government and provided an interesting discussion—not unconnected with the subject of 'new place effect', introduced by Mr. Hutchinson, of the E.C.G.C. Research Station, Trinidad; while the discussion of the efficiency of cotton picking machines, raised by the Tanganyika Government and of interest to so many cotton areas owing to the acuteness of the labour problem, indicates that at the present time there is little hope of any practical solution.

The application of more fundamental research to cotton growing problems was also discussed. Two papers, one by Dr. Maskell, formerly of the E.C.G.C. Research Station, Trinidad, and the other by Dr. Gregory, of the Imperial College of Science and Technology, and Messrs. Crowther and Lambert, of the Sudan, dealt with the application of Dr. Fisher's recent methods of plot technique and analysis of field experiments. The former dealt more particularly with the possibility of securing a co-ordinated series of experiments in the different cotton growing territories, a subject to which reference was made in an editorial article in NATURE of April 12 last; the latter recorded some interesting results obtained in the Sudan by the application of these methods. The discussion on both papers illustrated the practical limitations by which such lines of investigation are rigidly bound.

The work at Rothamsted on the investigations, under controlled conditions, bearing on that widely distributed and elusive disease 'black-arm' (*Bacterium*

malvacearum) was described by Dr. Stoughton, and the discussion revealed a critical attitude by many to the value of results obtained under such abnormal conditions of growth of the host plant. Finally, Prof. Weiss introduced a discussion of the subject of grafting and chimæra formation in its application to cotton.

On Oct. 21 a meeting of the Administrative Council of the Empire Cotton Growing Corporation was held, and in presenting the quarterly report of the Executive Committee, the director referred to the fact that the Sudan Government is about to reorganise its work on agricultural research, and with the view of effecting closer co-ordination between the different research workers, a Research Policy Committee is to be set up, of which the financial secretary will be chairman. In addition, an officer will be appointed to control the whole of the agricultural research work and to be the official channel of communication between the Research Farm in the Gezira and the Sudan Plantations Syndicate. With the consent of the Corporation, this post has been offered to, and accepted by, Mr. M. A. Bailey, the Corporation's plant breeder in the Sudan.

Reference was also made at the meeting to the success which has attended the use of steel ploughs at the Corporation's Seed Farm in Nigeria, and to the gratifying fact that neighbouring farmers, who are cultivating the land adjoining the Seed Farm on a co-operative basis, intend to purchase steel ploughs from the Corporation to replace their wooden ploughs, as they appreciate the superiority of the work which they are capable of doing. It is hoped that this movement will extend, with a consequent improvement in the standard of native agriculture in the district.

In Nyasaland a programme of seed control and distribution has been carefully prepared. The variety of cotton known as U.4, first bred at the Corporation's Experiment Station at Barberton in the Transvaal, is giving promising results in various parts of Nyasaland under widely different climatic conditions. It is believed that it may be possible by selection to obtain both an early and a late strain of U.4 that will between them meet the requirements of the different parts of the Protectorate in which cotton is cultivated.

University and Educational Intelligence.

BIRMINGHAM.—Leave of absence has been granted to Profs. Brash (Dean of the Faculty of Medicine), Haswell Wilson, and Daly, to visit the United States as guests of the Rockefeller Foundation to inspect the buildings and equipment of medical schools in that country in view of the building and development of the new medical school of the University of Birmingham.

There is a considerable increase in the entry of medical students to the University this session, but the number of entries to the University as a whole shows only a slight increase.

CAMBRIDGE.—The Appointments Committee of the Faculty of Agriculture and Forestry has appointed Dr. H. G. Sanders, of St. John's College, to be University lecturer in agriculture.

The Regent House has approved the recommendations contained in the report of the Council of the Senate on Mr. Montague Burton's benefaction for the endowment of a professorship of industrial relations, with a stipend of £1200 a year. If after the payment of this stipend and the appropriate pension contribution there is still a surplus in the fund in any year, it