INDIAN CENTRAL COTTON COMMITTEE

(Conference of Scientific Research Workers)

THE Second Conference of Scientific Research Workers on Cotton, over which the President of the Committee (Mr. P. M. Kharegat) presided, was held in Bombay on the 19–21 January 1941. About fifty workers engaged in cotton research all over India attended the Conference and 45 papers covering all aspects of cotton improvement—"Cotton Genetics and Breeding", "Cotton Agriculture", "Cotton Technology", "Cotton Statistics" and "Cotton Pests and Diseases"—were read and discussed.

The first day of the Conference was devoted to the discussion of problems connected with "Cotton Genetics and Breeding" and "Cotton Statistics". A plea was put forward for a complete survey of cottons in Eastern Bengal, Assam and Burma and the need for a more intensive programme of hybridisation of cottons in India for purposes of isolating better quality types was also emphasised. In view of the prospect of the evolution of types combining the high yield and better quality of the American cottons with the hardiness of the Asiatic types, much interest was evinced in the research work on Asiatic-American crosses which was being developed at Surat. The problem as to whether there is a place for highly prolific, exceedingly short staple cotton in India was also discussed and the view was held that such cottons, under present conditions, would command a limited market.

The papers on "Cotton Agriculture" and "Cotton Technology" were considered on the second day. Considerable discussion, from the purely agricultural standpoint, took place on the effect of growing mixtures of cotton varieties on the incidence of pests and diseases on such cottons and the quality of lint. It was reported that in the Malwa tract where this practice was in vogue, the bollworm attack on Upland Cotton and the incidence of wilt in the Malvi type had considerably decreased with, at the same time, an improvement in the quality of lint compared with that of the local. Observations in Hyderabad, however, indicated that the characters of mixtures of pure *desi* types experimented with were more or less intermediate in comparison with those of the pure strains. In this connection it was mentioned that in the Punjab the incidence of root rot had appreciably decreased in cotton grown with other crops like sorghum and moth.

In the discussion on the manurial problems of cotton, stress was laid on the necessity of greater experimentation being carried out on cultivators' fields with the use of simple designs of lay-out.

In the Technological Section the influence of environmental conditions, such as atmospheric temperature and humidity, time of sowing, change of place and duration of crop, on the fibre properties of cotton received much attention.

The work done at the Technological Laboratory in connection with the prediction of the approximate spinning performance of a cotton from its fibre properties was reviewed. It was pointed out that in the older investigation by taking six fibre properties into consideration it was possible to account for variation in spinning quality in 86% of the cases, while the more recent investigations indicated that by taking the properties—fibre length, fibre weight per inch and swollen hair diameter—it is possible to account for some 89% of the variation. These investigations suggested a new method of attacking this problem as a result of which the importance of swollen hair diameter and length irregularity percentage was established. Investigations are, however, still in progress and details will in due course be published in the form of a bulletin.

The third day of the Conference was devoted to consideration of the problem involving the breeding of a 100% wilt-resistant cotton. The technique developed in Poona where work of this nature is being carried out under the supervision of the Plant Pathologist to Government with the aid of a grant from the Committee has given very encouraging results. It was pointed out that in the matter of the control of pests and diseases, the evolution of resistant types possibly plays an important part and accordingly close co-operation between entomologists, plant pathologists and breeders was emphasised.

The President in his concluding remarks emphasised the need for greater co-ordination between the various technicians and scientific workers and stressed the importance of designing means for making the results of research available to the cultivator.