

nationalisation. On the contrary, the precarious tenure proposed under nationalisation would make profit almost out of the question.

He did not deny that there was room for improvement in agriculture, but that improvement would come without turning every thing upside down. Now that we were back on the gold standard there was every reason to think that with stabilised prices our great industries would recover, and if they did recover it was the teaching of history that agriculture always recovered with them.

Coimbatore Canebreeding Station.

AN APPRECIATION OF ITS WORK.

Report of the Government Sugarcane Expert for 1924—25.

Since the formation of the office of Sugar Cane Expert at Coimbatore, India, in 1912, the work of this division has been confined largely to the production of seedling sugarcanes and a study of the root developments of the sugar cane. The report for 1924—25 which we have just received, contains interesting and instructive data pertaining to the research and investigation work conducted by this office which is in charge of T. S. Venkatraman B. A.,

During the year under review much progress has been made in their research work and investigations on the technique of breeding operations and we especially note the advancement made in the control of male fertility in sugar cane arrows. After a number of attempts to influence the fertility of the arrow of the sugar cane by various manipulations, and noting an observation recorded at the commencement of this office in 1912 that the arrows obtained from canes grown in saline lands showed a comparative absence of healthy anthers and pollen, while in good soil the same variety of cane was rich in pollen, experiments were conducted in the feeding of the cane arrows on special solutions after separating them from the stalk. Tests show that these solutions reached the top portion of the arrows in less than twelve hours. While the results have not yet reached a positive state, it has been shown that certain solutions appear to have an effect on the color as well as the degree of opening of the anther sacs. The discovery of this susceptibility of the cane arrows to artificial feeding and its use in sugar cane breeding, enabling the control of the fertility of sugar canes grown

under conditions not favourable to production of fertile arrows and the benefit of this in breeding work, will unquestionably result in the production of hardy and more resistant varieties of cane.

Mr. Venkataraman a short time ago supplied the sugar world with a most excellent publication on Sugar Cane Breeding in India covering the entire subject from hybridization to testing. This attracted attention in the entire cane producing world and this notation of the control of fertility of the arrows is a further addition to the good work being accomplished by the Government Sugarcane Expert in India.

Another feature of prominence that we note in the report is the breeding of sugarcane for provinces which are unable to germinate their own sugarcane seedlings. This has been accomplished with pronounced success not only in India, but mention is made that as early as 1922 a batch of hardy sugar cane seeds sent from Coimbatore to the Bureau of Plant Industry of the United States Department of Agriculture germinated after the journey. Mention is made that this is perhaps the first instance where cane seed is known to have germinated after travelling such a long distance.

Work was also devoted to the breeding of sugarcane for disease resistance and attention is being paid to this feature of the work through the researches of this institute.

The Coimbatore seedlings which were originated by this institution have given splendid results in Northern India. The two seedlings most favourable are Co. 210 and Co. 213. These canes have been commented on before and are being rapidly extended through the work and tests made under the supervision of the Secretary of the Sugar Bureau at Pusa, India, notice of which we have had the pleasure of presenting in previous issues of THE PLANTER.

Another seedling is mentioned in this report as proving valuable under a wide range of conditions. This is Co. 205. It has shown a particular value in areas where the soil is water-logged. This seedling has been grown successfully both on unirrigated land and on the heavy water-logged lands on river borders and is reported to give good results under indifferent conditions. It is recommended as a poor man's cane and shows better results in bad years.

The station at Coimbatore has now been placed on a permanent basis after a probatory period of over a dozen years. This is a conclusive proof of the esteem in which it is held by the sugar industry in India. The seedling canes produced by this station have

come to be known in every province of Northern India and have extended from India to various sugar cane producing countries. In Northern Bihar these seedlings, by their superior sugar yield have shown conclusively that good canes of high sugar content can be grown in this section. The results achieved during the short period since the introduction of these canes have unquestionably justified the expenditure on this station. The introduction of these seedling canes has developed and stimulated the sugar manufacturer in India and marks an advancement which can be attributed practically entirely to the good influence from the work of the station.

We note with pleasure the establishment of this station on a permanent basis and look forward to still further betterments through the excellent research and investigations conducted at Coimbatore.

(The Planter and sugar manufacturer Vol. LXXVI No. 8.) Y. R. R.

A Review on the Tenure of Agricultural Land.

BY ORWIN AND PEEL.

"England has been a landlord's country; the state is entirely divorced from the land except when, as in the case of Crown lands it assumes the function of landlord. The whole rural system has been built up and has hitherto rotated round this central fact. Any incremental values that accrued during the course of centuries, whether the result of improvements or of any change in money value, pass in consequence to the landlord and tenant, the relative share between the two being adjusted in the rent. The State received no regular part of such increment though, owing to the rise in administration costs, such taxes as death duties which have in recent years been imposed, do form such a drain on estates, but a drain which is less satisfactory, because irregular in incidence.

The system has broken down; the landlord is a disappearing element from rural life and tenants are being forced to purchase to retain security though all evidence points to the absence of desire to purchase. Lack of capital for intensive development and lack of marketing facilities characterise the change and it is evident something must be done to rescue British Agriculture from the slough into which it has drifted. The authors propose a system of state purchase as distinct from nationalisation and elaborate the system in some detail with a fair statement of the *pros* and *cons*, though doubts may be entertained as to the advisability or effectiveness of a further host of officials.