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EDITORIAL

Cocoa Prospects

COCOA appears to have been introduced into Ceylon by the Dutch but there was little extension of the cultivation of this crop until towards the end of the nineteenth century. Lock states that most of the present cocoa seems to have originated from a consignment from Trinidad obtained by Sir R. Horton in 1834-35, and Sessional Paper XLV of 1880 deals with further importations from Trinidad. Dutch introductions had been of the Criollo type. About 1890 Ceylon cocoa was commanding very high prices on the European market where it was considered essential for blending. Even in those days Ceylon cocoa had special characteristics which fitted it for particular markets, as is the case today. By 1932 the acreage had reached 35,000, nearly all in the Kandy and Matale Districts. Low prices in the nineteen-thirties caused some areas to be neglected or replaced by other crops, and these continued in the war years because of lack of shipping space. There was over-production of cocoa in the world before the war, which depressed prices, but the advent of some serious diseases about 1936 has now altered the outlook for the future.

World production of cocoa has been about 700,000 tons a year, of which about half has been from West Africa and a third from Latin America. West African production is almost entirely from small peasant holdings scattered through the Gold Coast, Nigeria, and the Ivory Coast. In the Western Hemisphere the tree is indigenous and is cultivated both in large estates and in peasant holdings. Compared to tea and rubber the proportion of small holdings under cocoa is much larger, except possibly in Ceylon.

In its natural home cocoa has several diseases and pests which are troublesome, particularly Witch Broom Disease, but they are not of such uncontrollability as to threaten extinction of the industry. There are one

or two virus diseases known in cocoa in the West Indies and it is possible one or both of these may exist in Ceylon in a very mild form, perhaps introduced from Trinidad. These virus diseases are quite mild compared to those which have developed during the last 15 years in West Africa. The West African Swollen Shoot Viruses are now known to number 13 types at least. Some are fatal to the tree in about a year while others are of lesser severity or even innocuous. A tree once infected cannot recover and infection by a sub-lethal type does not exclude the possibility of later infections by another, severer type. The spread of these diseases has been very rapid and it is estimated that by now some 46 million trees will have been attacked. The only control measure which is deemed possible is to destroy affected trees as soon as discovered but this has not been effective because of resistance by peasants, who, despite compensation, cannot realize the danger and resent the temporary loss of income.

The viruses are known to be harboured by a number of forest trees, including dadap, from whence the disease probably originated. It is transmitted by certain juice-sucking insects, one of which exists in Ceylon.

In Asia there are so far no pests or diseases of such magnitude as to prevent the profitable cultivation of cocoa. In this we are fortunate compared to the major cocoa-growing areas of the world, but the greatest possible care is necessary to prevent the chance introduction of any of the major troubles. It is furthermore necessary to ensure that the present cocoa plantations are maintained in as high a state of production as possible and that it cease to be regarded as a forest crop which is left to fend for itself.

Research into cocoa improvement is an urgent necessity. The cocoa plant is extremely variable and different varieties cross between themselves so that selected seed does not come true to type and the progeny of any mother tree is a mixture, both in quality of beans and in yielding power. To plant such a mixture means that the future plantation will depend on only a fraction of its trees for the major part of the production, the remainder yielding very little but costing just as much to maintain as the best yielders. The case of tea and rubber, where large acreages are now under mixed types of moderate production capacity whereas they could, but for replanting costs, be under high-yielding clones, should be remembered when new plantings of cocoa are considered. Unfortunately there are not available in Asia any selected high-yielding cocoa clones at present and the dangers inherent in importations are too great, even if countries having good yielding clones were willing to release them to possible rivals in the trade.

Besides yield, the question of quality needs investigation. Ceylon cocoa has special markets, such as the Philippines, which absorb the highly fermented and artificially dried reddish beans produced here. Even with the best Ceylon curing the mixed produce of our present plantations does not meet the requirements of some buyers, such as those who demand a pure Criollo type, not now to be found unmixed with Forastero or hybrids. A further line of research waiting to be done is on the propagation by vegetative means. The Agricultural Department has been able to obtain 80 per cent. success with rooting cuttings but it is by no means certain that

clones will do best "on their own roots". Investigations into budding and on stock-scion interactions are required, not omitting the possible use of Alligator (*T. pentagona*) and Monkey (*T. angustifolia*) cocoas as stocks.

Future world markets will depend largely on the success achieved in controlling virus diseases in West Africa and on possible development of new areas in the East. So far as can be foreseen no effective control measure is possible in West Africa other than the long-term one of replanting with virus-resistant clones which have not been discovered yet. Such a discovery is problematical and its use when made will entail a complete renewal of existing trees. World demand for cocoa is steadily rising so that provided a good product acceptable to consumers can be produced there should be no fear of over-production for a good many years to come.

Recent falls in the market price of cocoa seem to have been the result of larger exports from West Africa in 1948 and 1949 but it is doubtful whether these increased exports are really indicative of a permanently increased production from that area. The increase may have been partly due to a favourable season combined with the coming into bearing of new plantings. There is no indication that the ravages of swollen shoot have in any way diminished. It is, however, doubtful whether Ceylon should confine herself in the future only to the special grades hitherto produced. The main world demand is for fully fermented cocoa for which shell colour is less important. Even though the local trade fixes prices largely on appearance, there are other markets in the world which will absorb different grades less troublesome to prepare. Some research into curing and marketing of such grades appears necessary.