

whole trade was thrown into the hands of the other traders, with the result that they have profited considerably thereby. Under the circumstances, one naturally concludes that each of them feels under a deep obligation to give every possible assistance to the Administrator in all his governmental activities.

If these D.H. & P.G. plantations are to be carried on by your Government it is a question whether it would not be wise, under certain circumstances, to restock and reopen these outlying stores for general business. Besides being a source of considerable profit, the stores, which are centrally situated, would be of great convenience to the Natives.

The estimated cost of planting an acre of coconut-palm, including cutting down the bush, planting, tending, keeping clear of weeds, loss of interest on capital expenditure while waiting for crop, &c., is estimated by reliable authorities to be £80, and the ascertained yield of copra from an acre is about 800 lb. per annum. On this scale the cost of planting the 8,820 acres formerly owned by the D.H. & P.G. would be £705,600. The cost of bringing into bearing an acre of cocoa is estimated to be £90.

Education.

Agricultural subjects should be emphasized in all public schools; indeed, the whole trend of education should be towards agriculture. Wherever possible, areas should be set aside for demonstration purposes, so that the child may grow up with a wider knowledge of what must, in the nature of things, be his future life's work.

Exports.

The chief export products of the islands are copra, cocoa, and rubber, the greatest being copra. We have attached a list of exports to the end of this section of our report, from which will be seen the trend and progress of trade for the past four years. We would point out, however, that while 1919 was a record year for the export of copra, it is estimated that 5,000 tons were carried over from 1918 owing to a shortage of shipping.

As we previously pointed out, there is great room for future development in all classes of tropical products, many thousands of acres at present lying idle being suitable for cultivation. Copra, cocoa, coffee, rubber, kapok, pineapples, castor-oil seeds, sago, nutmeg, pepper, ginger, cloves, vanilla, arrowroot, sisal, might all be grown with advantage.

A most serious drawback to the rapid extension of the export trade is the shortage of labour: this matter is dealt with later.

If any development does take place, it will, for a considerable time at least, be in coconut-growing, provided the price does not fall considerably. Copra-making seems to suit the Native temperament. It is a comparatively easy crop to handle: little labour is required compared with the growing of cocoa, coffee, or rubber, and the palm is not susceptible to diseases. After the trees are sufficiently grown, cattle can be turned out on the native grasses. Not only are they a source of income in themselves, but they save manual labour by keeping the plantations clean. Some of the land is capable of grazing about two bullocks to 3 acres. If, however, the price of copra falls considerably, the Samoan may turn his attention to cocoa, coffee, and rubber growing. Only comparatively small areas would be planted in the products mentioned owing to the amount of labour required to tend and harvest the crops. If the coconut plantations were permitted to become overgrown the rhinoceros-beetle would have shelter to breed and increase, and the fate of the coconut-palm would be sealed. The rhinoceros-beetle (*Oryctes Nasicornis*) was probably introduced into Samoa from Ceylon about 1908, but was first discovered in Upolu in 1910, and, owing to a want of knowledge on the part of planters, it spread considerably, especially in plantations which were overgrown and dirty. Effective steps were at first taken to deal with the pest by the German authorities in 1910-11, and these have been since continued by the New Zealand Military Administration.

The Department of Agriculture reported in 1917 that, after a careful investigation, they found that clean plantations were least affected.

With strict supervision over the cleanliness of the plantation, and a weekly search by the Natives, the beetle has been kept in check.