"Mangaia.—The work of blasting the reef passage at the Atuakoro landing is proceeding under the direction of the Resident Agent. The necessary levels for the proposed new road from the landing at Oneroa over the high Makatea inland have been taken. This road, if constructed, will considerably lessen the labour of conveying fruit and copra to the landing, as at present it has all to be carried down steep rough steps. It will also considerably lessen the distance to this landing for the Ivirua people. Material is also on order for the erection of a new cargo-shed at the Oneroa landing."

## AGRICULTURE AND FRUIT INDUSTRY.

Our main industries—viz., copra and fruit export—are in a somewhat uncertain position. Copraprices have been low for some years and are still dropping, whilst fruit-prices have for some time been increasingly unsatisfactory. With the competition arising from Fiji, California, Australia, and now Samoa, there is, without some measure of preference and protection, very little to encourage our growers to persevere with bananas and oranges.

Seven district packing-sheds have now been erected by the Native growers, and have been equipped with grading-machines, engines, weighing-machines, tables, and bins, and everything is in readiness for the coming fruit season. In addition, a machine for brushing oranges, with elevator attachment, has been installed in one of the packing-sheds for experimental purposes.

Last year the services of three additional Inspectors from the Department of Agriculture, New Zealand, were obtained to assist in the work of inspection and supervision of the packing-sheds during the orange season, and similar arrangements have also been made this season. A committee of seven influential Natives, with an Ariki or member of the Island Council as Chairman, were elected for each packing-shed in order to supervise the erection and to assist in the management. are at present being trained by the Fruit Inspection Department, so that when the orange season commences each shed will have the services of skilled packers. The scheme of having one large packingshed in each district, under the supervision of an Inspector assisted by the Shed Committee, and having a staff of trained packers, should make a marked improvement in the quality and pack of fruit for export.

During the year reports from New Zealand showed a considerable improvement in the grade, pack, and quality of our fruit, but, notwithstanding the amount of work and care taken with the orange crop, prices obtained in New Zealand were very disappointing.

There are prospects of a heavy crop of tomatoes for the coming season, and also an improvement in regard to bananas and pineapples.

Food crops continue to be very heavily planted, as will be seen by the attached returns.

In view of the position of our main industries, we have been anxious to establish some suitable secondary industry or industries, which will be profitable to our people. For experimental purposes we obtained from New Zealand seeds of cigar, pipe, and cigarette tobaccos, and these have been propagated. Results to date are shown in the attached report under the heading of "Experimental Nursery."

The Cook Islands Trading Co. last year carried out extensive experiments in regard to the preservation of orange-juice, and it is hoped that this season will see the commencement of a new industry which, if successful, will absorb a considerable part of the surplus orange crop which heretofore has

been practically wasted owing to the lack of shipping.

The following are extracts from the Report of the Director of Agriculture:-

## " Fruit Industry—Crops.

"Planting Operations.—For the purpose of compiling records of planting, as well as attending to the eradication of weeds, and also to give instruction to growers when required, each Inspector was allotted a district.

"The following report on planting operations has been compiled from their notes:-

"Statistics of plantings on Rarotonga, Cook Islands, for the year ended 1928: Total planted-Bananas, 164,861; tomatoes, 795,170; taro, 213,860; arrowroot, 16,870; kumaras, 94,630; sugarcane, 1,510; pines, 9,645; oranges, 24; yams, 5,860; vanilla, 265; mandarins, 42; grapefruit, 70; coconuts, 1,813; passion-fruit, 150.

Next year planting of breadfruit will be noted.

"Oranges.—The crop will be a comparatively light one in Rarotonga, consequently there will be rge proportion of oversized and rough fruit. Reports from Aitutaki, Atiu, Mauke, and Mangaia a large proportion of oversized and rough fruit. indicate good to heavy crops in those islands.

"Bananas.—Excellent plots of bananas are noticeable.

"Tomatoes.—This crop receives considerable attention. If growers planted smaller plots and gave more attention to culture it is probable that they would be better off financially. New varieties, stated to be rust and wilt proof, were distributed to growers, but with the exception of Norton the reports received were unsatisfactory. Further varieties are to be distributed and tested this year. The Cawthron Institute, New Zealand, kindly raised plants from seed of the local Halfcaste tomato and have supplied seed. It is thought the plants will have more vitality if secured from plants grown in a cooler climate. This will be tried out and the experiment will prove of interest.

' Domestic Crops.—Both the dry-land and swamp taro have been extensively planted. Kumaraplanting is an important feature, and excellent plots are noticeable, the plants being vigorous and well

cared for. The Hawaiian Red is the most popular variety.

Planting operations have received considerable attention by the Au Vaine, or Women's Committees, in the different settlements, and much excellent work has been accomplished with their assistance and supervision.