

Kumaras.—In several places kumaras might grow. Despite the fact of the light character of the soil in general a great variety of thick vegetation covers the whole of the island.

Timber.—The only trees that reach any size on the island are the pukatea, tamanu (I only saw one large one), utu, ano, tanunu, nono, tou, and toa, and plenty of pandanus. The scrub is thick and composed of ngangie, kinakina, kopara, and puutukava.

Well.—At the eastern end of the island there is a water-hole from which fairly fresh water can be obtained. At any rate it supplied our wants during the time we were on the island.

Area of Bearing Cocoanuts.—It is difficult to estimate the area of bearing cocoanuts on the island, as the patches of cocoanuts are so scattered and irregularly planted. There is one good patch at the north-west end where we camped, which I estimate at equal to three hundred cocoanuts, and in other places another three hundred, making, say, six hundred, which ought to yield 4 tons of copra per annum.

Names.—I am sorry we did not get an old Native from Atiu to give us the names of the different places; none of our party had been on the island before, therefore we show no names on the plan.

Rats.—I saw a good many rats on the island.

Mosquitoes.—During our stay we saw very few mosquitoes, and only in the daytime; not a single one by night. The weather was fairly cold for the time of the year and latitude.

Fish.—Plenty of fish; we had lines with us, but we never had to use them, as the cook could get all the fish we could eat with his spear.

Large Land-crabs.—We caught one large coconut-eating crab, and I believe there are a good many on the island from the traces of them we saw.

Plants.—The cocoanuts have not been picked up for some two or three years, so there were plenty of plants. We took some plants with us from Rarotonga, but they suffered very much on the trip. In future I would advise taking a few good cocoanuts, say, from Aitutaki or the northern islands, but no more plants (sprouted nuts).

Kirikiri.—Plenty of fine kirikiri (shingle) on the beach for concrete building purposes.

Area planted.—We planted about 20 acres in cocoanuts by simply cutting lines and planting the coconut plants 25 ft. apart, leaving the scrub between the rows. The coconut on sandy islands requires a certain amount of shade when young to protect it from the fierce rays of the sun. When the plants are four or five years old most of the scrub might be cleared away. With the party of, say, twelve working we could only do two lines of about 40 chains each, equal to, roughly, 3 acres a day, and as we had only seven working-days, we just planted about fifteen hundred plants.

Direction of the Lines.—Had I surveyed the island before I started planting I should have run the lines north and south and east and west; but as we had no time to spare we started in the lines bearing 69° and 159° true, as the 69°-line seemed about parallel to the length of the island, being 56 chains long on the beach. At any rate, it matters little after all, as long as the lines are fairly straight.

Cost of planting the Whole Island.—I estimate the cost of planting the whole island at about £1 5s. per acre—say, £300. This trip has cost at a higher rate, but our stay has been so short on the island, about eight days, compared with the loss in going and coming; also, we had to survey the island and start the work, so the extra cost can be accounted for.

Full Bearing.—When in full bearing—say, in fifteen years from planting—this island ought to produce, if all planted, at least 100 tons of copra per annum.

If it is the intention of the Government to plant the whole island, I advise that it be planted at the rate of, say, five thousand trees per annum, or in three years. Then the island would furnish almost all the plants. A nursery might also be laid down with cocoanuts from Aitutaki or other islands.

H. M. CONNALL,

Government Surveyor.

13th September, 1905.

No. 64.

SIR,— Cook and other Islands Administration, Wellington, 15th September, 1905.

I enclose a copy of the letter received from Mr. T. W. Kirk, Government Biologist, in reply to inquiries I made as to the probable cost of establishing a Government plantation, with experimental ground and nursery attached, at Rarotonga.

I shall be glad if you will supplement as far as possible the information Mr. Kirk has given, and also say what prospect there is of securing the 20 acres which he considers necessary in order to put the scheme into operation. Please say, further, what proportion of the estimated cost your Administration will be prepared to bear.

I have, &c.,

The Resident Commissioner, Rarotonga.

C. H. MILLS.

Enclosure.

Department of Agriculture, H.M. Customs Building, Wellington, 7th September, 1905.
The Hon. the Minister for Agriculture (through the Secretary for Agriculture).

Cook Islands.

In reply to memo. from the Hon. the Minister in Charge of Cook and other Islands, numbered 1905/115, I may state that for the purpose of establishing model plantations of (1) coconut, (2) banana, (3) citrus fruits, (4) pineapple, (5) coffee, (6) experimental ground for testing new varieties and various methods of culture, (7) nursery in which plants free from pests and of guaranteed nomenclature can be raised, an area of about 20 acres should be secured.