

Plantation Inspection and Control of Fruit-fly.

Regulations under the Fruit Ordinance setting out that mangoes, guavas, and oranges shall be gathered and destroyed on certain days of the week were gazetted last July. The island is divided into six districts, each in charge of a Native inspector, whose duty it is to see that the regulations are duly carried out. It is essential to enforce the regulations stringently, and to control and reduce the pest this work should be rigidly carried out. With only one European Inspector one cannot expect the best results; from December to April and July to October European assistance is highly desirable. When it is a matter of rigidly administering law I find a Native has too many friends. Mangoes being the first fruit to come under the regulations, a good deal of latitude was given with the early and mid-season crop: when the time came to make no allowance I found the result as indicated in the preceding paragraph. Without constant European supervision it is impossible to bring all offenders to book.

There are on record 926 plantations in Rarotonga, bearing mangoes 2,860; guava and rose-apple trees (excepted under the regulations) 853. It is impossible to estimate the number of orange-trees.

A start was made at the beginning of December enforcing clause 1 (a) and 1 (c) of the Fruit-fly Regulations. In January a number of growers were prosecuted for failing to gather and destroy the fallen mangoes in their plantations. Acceptable work, considering this is the first period under the new law, has since been performed, but it must be understood it is by no means as thorough as is desirable.

Nearly all guava and rose-apple trees except those excepted under the regulations have been cut down. A good deal of trouble will always be experienced with guavas. When once cut, the tree is not finished with—it immediately shoots again—and I have known fruit come on this young growth in four months. When cut in December and January the fruit-crop is destroyed, and the little fruit that is likely to come on the new growth that season need hardly be taken into account.

Now the regulations are in full swing, provision should be made this coming season to have the hills and numerous unused valleys thoroughly scoured and all trees known to carry fruit-fly totally destroyed. To cope with this disastrous pest it would be reasonable to declare areas in which all oranges, mangoes, and guavas should be cut down—viz., land carrying fruit-trees which from a commercial point of view is inaccessible.

I am pleased to report that during the year I have not found fruit-fly infection in fruits other than mentioned in last year's report.

Other Pests.

Rats do an enormous amount of damage in coconut plantations, causing large quantities of young nuts to fall. Another form of destruction is stripping the bark from young citrus and other trees, death resulting in very many instances. To reduce this pest I think wholesale poisoning would be practicable. My idea is to lay bait of grated coconut for three or four days and then poison the food. This has been tried on a small scale on the island with splendid results, arsenic being the poison used. I suggest baiting at intervals in both kainga and plantation, and if possible poison the whole island the same day. When once a rat locates the bait he frequents it constantly and brings friends to share the food. No doubt poisoning would have to be undertaken several times to reduce the pest to an appreciable extent; good results can only follow systematic and universal poisoning. I feel sure if wholesale poisoning were adopted planters would be more than compensated by greater yield of matured nuts alone, not taking into consideration the various other vices of the rodent.

The various scale pests attacking vegetation, though still numerous, appear to be decreasing.

In the spring black aphid appeared a great deal thicker on oranges than it did the former year, and threatened to kill the young growth and destroy the flowers. Fortunately there are working against this pest at least three parasites which after a very short time destroyed all evidence of its presence. The small ladybird (*Platyomus lividigaster*) played a very prominent part in this work, and was ably assisted by syrphus and lacewing flies.

Ladybirds.

Last autumn Mr. T. W. Kirk, of the Department of Agriculture of New Zealand, kindly supplied the Administration with a colony of steel-blue ladybirds (*Orcus chalybeus*). A portion were sent to Mangaia, the balance were liberated in Rarotonga. This ladybird preys on various species of scale insects, and its work as a controller of scale is highly esteemed by orchardists in New Zealand. I cannot say whether this beneficial insect is acclimatized or not; I have only seen two or three specimens since they were liberated, and these some months ago.

The Resident Commissioner, Rarotonga.

I have, &c.,
GORDON ESAM,
Fruit Inspector.

ELECTION OF RANGI MAKEA AS MAKEA ARIKI.

No. 2.

SIR,—

Cook Islands Administration, Rarotonga, 19th August, 1911.

Referring to my letter of the 15th May last (M4/1213/11/250), regarding the death of Makea Ariki, I have the honour to inform you that at a meeting of the Council held on the 5th July last Rangi Makea was unanimously elected Makea Ariki.

This is in accordance with section 1 of Federal Ordinance No. 26, an Ordinance to regulate the Election of Arikis, and has my approval.

Before carrying the election into effect I shall be glad to know that you also approve.

I have, &c.,
J. EMAN SMITH,
Resident Commissioner.

The Hon. the Minister in Charge, Cook Islands Administration, Wellington.