

## A NEW COCONUT PEST.

Yet another pest of the Coconut has been discovered in the Philippines and from all accounts it will prove a serious menace to plantations in the Colony and Federated Malay States unless sufficient precautions are taken immediately. So far, it seems to be restricted to certain areas in the Philippines, and the Department of Agriculture are fully aware of the danger arising from this insect, and we may be sure that they will use every means in their power, to prevent its spreading throughout the Philippines and ultimately to the Straits Settlements.

It has been considered advisable to prohibit the importation of palms, etc., from the Philippines.

We reprint the description, etc., of this pest as it has appeared in The Philippine Agricultural Review, together with the copy of the Ordinance as it appeared in the S. S. Gazette, May 31st, 1912.

"A parasite of the coconut palm, which may prove to be the most serious pest of this crop in the Philippine Islands, was discovered in May, 1911. This insect is related to the White Fly of the citrus orchards of Florida, and this fact alone is sufficient to cause the coconut planters considerable anxiety. For the present, however, it appears that this insect, which may be termed the Coconut White Fly, is confined to a district in Negros Oriental, extending from the barrio of Tabon on the north and the barrio of Zamora on the south, range of some 35 kilometers in length. Most of the coconut groves in this area, which extends from the sea-coast back to a range of hills to the west, are infested with the parasite.

The first specimens were collected on the hacienda of Mr. Henry Gardner in the vicinity of Guijulgant. It appears that this is the first occurrence of any insect of this genus in the Philippine Islands, and, further more, the species itself is new to science. It has been described by Mr. Quainstance of the Bureau of Entomology, United States Department of Agriculture, D. C., as *Aleyrodicus destructo* a similar species (*A. cocois*, Westw.) occurs in the West Indies and has caused immense damage there to the coconut groves, some districts having even been abandoned largely on account of its attacks.

Like all of the so-called "White Flies" (which are, of course, not flies) and the related "scales," the individuals are very small and not readily noticeable except when present in large colonies. The general color of the older individuals is white or grayish; at first the larvae are nearly naked and of a pale brownish shade, but when about half grown they develop a fringe of white waxy material around the edge of the body. This waxy substance, as the insect grows, gradually covers the entire body with a mass of cottony thread-like appendages and waxy flakes.



The minute eggs are laid on the under surface of the leaflets, usually on the young leaves of the palm. Thus far it appears the insect is attacking by preference only the young palms, that is, those under 6 or 8 years of age, but unless checked it will probably soon spread to all the palms in the vicinity.

Soon after the eggs are hatched the young insect begins walking about on the underside of the leaf in the endeavour to find a suitable position for its attack, satisfying itself as to location, it inserts its beak through the epidermis of the leaf and begins to suck the sap from the soft inside tissue; after becoming thus attached, the young insect seldom moves, unless disturbed, until it attains its full size. Shortly before emerging as a winged insect it stops feeding, but remains attached to the leaf. Though comparatively weak fliers, the danger of their passing through the air from one tree to another is greatly increased by the action of winds, since when the insect may only wish to fly from one leaf to another, it may be accidentally borne by the wind to a considerable distance.

Some of the colonies contain scarcely more than a dozen individuals, while others contain many thousands and form an irregular white area over the underside of the leaf. This feature of their colour is exceedingly valuable to the coconut planter, since it allows him to readily determine the presence of a colony in his grove.

Although a hymenopterous insect, evidently a parasite of this coconut pest, was observed in the act of laying eggs in or upon the immature White Flies, it is not likely that any natural parasites will be of much avail in checking the spread of this pest. Therefore the coconut planters in the infested district should immediately go through their groves, cutting off and burning all attacked leaves, or portion thereof, and by the same token, it would be well for all coconut planters to carefully look over their young groves, and if any white insects are discovered, they should report the fact at once to the Director of Agriculture and should remove and burn all traces of the parasite. In certain cases it might be advisable to treat the pest with kerosine emulsion, or some similar spray, but unless the grower has had experience with such remedies, the use thereof would probably be in vain, if not actually injurious to the tree itself. Fumigation could be recommended only for extreme cases and then only for young trees.

If this pest is taken in hand immediately, there is very little chance of its spreading to other districts of the Philippines; and it is earnestly hoped that coconut planters throughout the Visayas and Tayabas will make a strenuous effort to prevent the spread of this pest, which, although apparently new to these Islands may within a few years become an exceedingly important factor in the coconut industry of the Far East.

(By D. B. Mackie, in *The Philippine Agricultural Review*, Vol. V. p. 142)



"Whereas it is provided by "The Destructive Pests Ordinance 1908" that the Governor in Council may from time to time make such Orders as may to the Governor in Council appear expedient for preventing the introduction into the Colony of any insect, fungus or other pest destructive to agricultural or horticultural crops, or to trees, or plants and for preventing the spreading in the Colony of any such insect, fungus, or other pest"

"AND WHEREAS information has been received to the effect that a disease of the coconut palm, believed to be the disease known as "WHITE FLY" (*Aleyrodicus destructor*) has appeared among coconuts in the Philippines Islands."

"NOW, THEREFORE the Governor in Council in exercise of the powers conferred on him by the aforesaid Ordinance prohibits until further notice the landing in the Colony of any palms, alive or dead, or any stems or foots or parts of stems or roots of palms or of any products of palms other than such as are expressly exempted from the operation of this Order, from the Philippine Islands, and authorizes the destruction of any such article, if landed in the Colony from the Philippine Island. This Order does not apply to dried copra or to oil expressed from coconuts."

(Sd.) M. S. H. McArthur,  
Clerk of Councils.

Council Chamber,  
Singapore, 28th May, 1912.

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## THE CASTOR OIL PLANT.

Having received enquiries from Planters as to the suitability or otherwise of the Castor Oil Plant as a "Catch Crop" for Rubber, it may be helpful to others with like ideas, if a few of the details of this plant are enumerated for their guidance.

The Castor Plant (*Ricinus communis*) is probably well known to many Planters in the Peninsula, as scattered plants are generally to be found growing round Tamil Coolie Lines, the coolies sowing a few seeds in order to obtain the oil from the plants thus sown.

Belonging to the Natural Order Euphorbiaceae, it is thus related *Hevea brasiliensis* and many other plants yielding valuable oil seeds. It is generally believed to have been originally a native of North Africa, but the plant is now largely cultivated throughout the world, in Tropical and sub-tropical and occasionally in Temperate regions.

It is said to occasionally attain a height of from 20 to 30 feet, but it rarely if ever attains a larger size than from 5 to 7 feet in the Peninsula.