



No. 29

January 2003

**Incursion of the soft brown scale *Coccus hesperidum* Linnaeus (Hemiptera, Suborder: Sternorrhyncha; Family: Coccidae) and the crazy ant *Anoplolepis gracilipes* (Smith) (Hymenoptera: Formicidae) on Nukunonu in Tokelau**

Soft brown scale is a new insect pest record for Tokelau. The scale is one of the most widespread and polyphagous of all scale insects. It is present in many Pacific island countries such as Samoa, Fiji, Kiribati, Tuvalu, Tonga, Niue and also Australia. The scale insect is a major pest of citrus, and also attacks many other plants, but not the grasses.

The adult female is brown to pale yellow, oblong in shape and measures 2.4 to 4 mm in length. It does not lay eggs, but produces nymphs or crawlers that have limited movement. The scale insect is mostly associated with ants, which feed on the insect's excretion and assist in spreading the nymphs.

*C. hesperidum* nymphs and adults suck plant juice. This action by the insect causes the plant to shrivel leading to reduction in its growth rate. Scale insect infestation leads to development of sooty mould on host-plant surfaces, which reduces the surface area for photosynthesis. Heavy infestation can cause the death of plants.

At present the scale insect is confined to Nukunonu atoll mainly within the immediate surroundings of Nukunonu village. Plants infested are pawpaws, bananas, gardenia and lily. Pawpaws and bananas were most severely affected. The infested plants (at the time of visit to Nukunonu) were stunted and the scale insect was found on leaves, leaf petioles, branchlets and fruits of fruiting plants. Most of the affected plants had black sooty mould.

Insecticide sprays can control the scale insect, but this is not desirable on Nukunonu. Eradication is possible by large-scale destruction of all infested plants. However, eradication programmes have not been successful wherever the scale was present. The long-term solution is biological control by introduction of suitable natural enemies of the scale insect to maintain low populations of the insect on Nukunonu.



Pawpaw fruits infested by the scale insect

To prevent further spread of the scale insect there should be strictly no movement of plants or planting material from Nukunonu to other atolls in the Tokelau group. It is advisable to remove infested plants and plant parts and burn them within the Nukunonu area.

The crazy ant (*Anoplolepis gracilipes*) is also a new insect pest record for Tokelau. The ant is widespread throughout many tropical and sub-tropical countries. This ant species is commonly found in grasslands, edges of woodlands, plantations, gardens, buildings and dwelling houses. In the homes they are attracted by food spillage, especially sweet food items.

The worker ants measure about 4 mm in body length. Body colour is yellowish brown. Antennae and legs are remarkably long with oval head. Eyes are relatively larger than the body size.



The crazy ant foraging on the scale insect

Crazy ant is closely associated with aphids, soft scales and mealybugs. The ant is attracted to the 'honey-dew' excretions of these insects. The ant, in turn, drives away the natural enemies of the insects, and in doing so, helps in the spread of the nymphs. In large numbers the ant is a nuisance. Although it does not directly damage the plants, due to its association with the plant feeding insects, it is considered as a secondary pest of crops.

The ant is difficult to control. Insecticides may be used, but are not desirable in most situations. The ant population can be managed by destroying its breeding places such as ant nests under stones, rotting logs on the ground, or in hollows of dead branches. Reducing their food sources such as food spillage will also keep the ant

population low. A few environment friendly ant baits have been developed that may be used on Nukunonu. In the household, 'ant troughs' (small containers of water), can be placed under the 'legs' of food safes and tables to prevent ants getting to the food.

It is likely that the soft brown scale insect and the crazy ant were introduced to Tokelau at about same time.

---

For further information, contact Mr. Mose Pelasio, Senior Agricultural Policy Officer, Fakaofu, Tokelau. E-mail: [mose.pelasio@clear.net.nz](mailto:mose.pelasio@clear.net.nz) or Mr. Sada Nand Lal, Entomologist, SPC Plant Protection Service; Tel: (679) 3370733; Fax: (679) 3386326, E-mail: [SadaNL@spc.int](mailto:SadaNL@spc.int).

Communications of pest and disease incidents of interest to the Pacific region should be sent to: **Plant Protection Service**, Secretariat of the Pacific Community, Private Mail Bag, Suva, Fiji Islands. Tel:(+679) 3370733; Fax: (+679) 3386326; E-mail:[pps@spc.int](mailto:pps@spc.int)