Plant Protection Service
Secretariat of the Pacific Community

Pest Alert

No. 20 **14 March 2001**

Orchid weevil *Orchidophilus aterrimus* outbreak reported

In October 2000 an orchid grower on Rarotonga approached the Ministry of Agriculture for advice regarding a pest problem. During a survey about 3,500 potted *Dendrobium spp*. orchids in a greenhouse were found infested by a weevil that was identified by CAB International as Orchid weevil *Orchidophilus aterrimus*.

A survey of other orchid growers indicated that the pest is most likely present only in one nursery on Rarotonga. The weevil is not recorded from other islands in the Southern or Northern Group of the Cook Islands.

Orchid weevils are reported from Hawaii, Singapore, Philippines, Thailand, Malaysia, Java, Australia, Indonesia, Japan and Fiji (not confirmed). This list may not be complete.

The Ministry of Agriculture is attempting to eradicate the weevil. All Dendrobium orchids in the infested nursery were burned. A chemical control programme has started and will continue for at least 6 months following recommendations from scientists in Hawaii. A public awareness programme was conducted via the media. The Ministry of Agriculture is continually monitoring the pest situation.

Orchid weevil larvae and adults feed on orchid flowers, stems, leaves and exposed roots. Orchids of the genera Dendrobium, Vanda, Phalaenopsis, Renanthera, Angraecum, Saccolobium, Cymbidium, Spathoglottis, Cattleya, Coelogyne and Paphiopedilum are recorded hosts.

Larval development and pupation takes place inside the cane. The total development from egg to adult takes some 5 months and the adult life span is 9 to 12 months. The adult weevil is black, up to 6 mm in length with a long, curved snout typical of weevils (Fig 1). When disturbed, weevils immediately drop from the plant and play dead.

Fig 1. Orchid weevil adult. *Photo: Ronald F.L. Mau*

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) 370733; Fax:(+679)370021; email: pps@spc.int

The feeding damage caused by adult weevils on stems, leaves and flowers is quite obvious. Adults eat out small holes in leaves and pseudobulbs to deposit eggs. The larvae that hatch from the eggs bore into the tissues, which may then become discoloured. After pupating the emerging adult leaves a hole as shown in Fig 2. Damaged plants and especially flowers are not marketable. The damage caused by the larvae developing inside the orchid cane or pseudobulb may not kill the plant, but bulbs often stop their growth and fail to produce flowers.

Fig 2. Emergence hole of the adult weevil. *Photo: Ronald F.L. Mau*

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