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Pest Alert

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Incursion of Citrus Psyllid in Guam

The Asian citrus psyllid, *Diaphorina citri* Kuwayama (Hemiptera: Psyllidae) was first detected in Guam on March 31, 2007, as reported by Dr Russell K. Campbell, Guam Department of Agriculture. It has also been reported in northwestern Papua New Guinea in an area close to the Indonesian border.

The insect is the only known vector for the 'deadly' citrus bacterium disease, huanglongbing (HLB), previously known as citrus greening disease. HLB is a major problem in Africa and Asia, including countries close to Guam such as Malaysia, Vietnam, the Philippines and Indonesia. It does not occur in Australia and Oceanic Pacific. The disease is also now a serious concern in Florida, USA, and the psyllid pest was recently intercepted in California on a shipment from Hawaii of curry leaf (*Bergera koenigii*), a known host plant. Mock orange (*Murraya paniculata*) is another host plant for the insect pest. Both plants are common in the Pacific Islands.

The Asian citrus psyllid Diaphorina citri *(above), and HLB symptoms on citrus plant, showing yellowing of only one branch or sector of one canopy (below).*

The citrus psyllid is found on the underside of young leaves and buds. The insect sucks the sap of plants, causing leaf distortion and curling. Affected leaves may be covered with honeydew and sooty mould. Adult psyllids are 3–4 mm in length, and have a yellowish-brown body and greyish-brown legs. Wings are clear and mottled with brown edges. Nymphs are smaller and generally yellowish-orange in colour. Psyllids are often confused with aphids, which are of similar size and are common on tender young citrus leaves. The main difference is that aphids move slowly, whereas adult psyllids are active insects that jump when disturbed and may fly a short distance. Adult psyllids also hold an unusual posture on the leaf head down, almost touching the surface, rear end pointing up at an angle. Like aphids, psyllids are often tended by ants, which are attracted to the honeydew they produce.

There are two forms of the bacterium that causes HLB. Both are found only in the food-conducting tissues of plants, the phloem vessels. The citrus psyllid vector acquires the disease by feeding on trees infected with HLB.

The biggest quarantine threat comes from people moving citrus and other host plants, especially mock orange, that are infested with citrus psyllid. The vector does not spread rapidly on its own.

The only cost-effective action is to eliminate HLB inoculum by removing infected plant tissues. Once established in a region, removing infected trees or parts of trees is recommended to limit local spread. On a country-wide scale, observing stringent internal quarantine precautions is the best option for preventing spread of infection to new areas.

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