

Alien Invasion

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Invasive alien species (IAS) are organisms accidentally or deliberately introduced into a natural environment where they are not normally found. Introduced species threatens the environment, economy, society and human health. Recently, a few IAS were found to threaten the Malaysian fruit and vegetable industries. The Asian citrus psyllid, *Diaphorina citri* (Hemiptera: Psyllidae), is a sap-sucking pest of limau madu (*Citrus sinensis* (Linnaeus) Osbeck). Infestation causes defoliation and dieback leading to dwarfing. *Diaphorina citri* is also a vector for *Candidatus liberibacter asiaticus* which causes the Citrus Greening Disease. Recently, *Tamarixia radiata* Waterston (Hymenoptera: Eulophidae) was found parasitizing *D. citri* nymphs in Malaysia.

Bemisia tabaci Gennadius (Hemiptera: Aleyrodidae) is a destructive pest of vegetables and ornamental

crops around the world. Biotypes B and Q are the most invasive and are known to displace indigenous biotypes either partially or completely upon introduction and establishment. Phylogenetic studies revealed individuals from Malaysia belong to the Q biotype. The invasion and establishment of invasive Q biotypes are of serious concern as it carries possibilities of devastating viral outbreaks with consequential economic loss.

Banana scarring beetle, *Basilepta musae* (Coleoptera: Chrysomelidae) was found to infest a banana plantation on April, 2010 in Peninsular Malaysia leading to reduction in the quality of exported banana fruits. Adults and larvae feed on the leaves and skin of unripe banana fruits, resulting in dark scars which get bigger as the fruits mature. Although the banana flesh is unaffected, feeding scars on the skin render it unmarketable. In severe infestation, yield will be reduced.



