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HOW TO SAVE PALMS FROM HISPID BEETLE ATTACKS

Damage on palm

Many palm species along our roadsides and parks are constantly attacked by hispid beetles at the spears. The damages on the spears and young fronds of the palms are longitudinal brown strips/patches. These patches coalesced to give large dead areas on leaves. These dead areas finally tear apart leaving a ragged appearance. The infested spears may rot due to either fungal or bacterial infection. Young palms can die from severe infestation. The purpose of this technical guide is to assist staff to identify hispid beetle attacks on palms, and to disseminate information on effective chemical control.



longitudinal brown strips/patches on palm fronds



longitudinal brown strips on spear of palm



Dead areas tear apart leaving a ragged appearance

Hispid beetles

There are four species of Hispid beetles that attack palms and they belonged to *Brontispa longissima*, *Promecotheca* sp., *Wallaceana* sp. *Plesispa reich*. The most common Hispid beetles that attacked palms is *Brontispa longissima*.

larva of *Brontispa longissima*.



Adult of *Brontispa longissima*

Note: The larvae and adults are mostly found in partially opened spears/young fronds

Chemical control

Imidacloprid (Confidor 18.3% w/w 200Sc) is very effective in Hispid beetle population suppression using either foliar spray or soil-drenching methods. When soil-drenching method is used, the amount of imidacloprid use per palm depends on the height of palm. The effective concentrations, the amount require to soil drench one palm and the application intervals of imidacloprid for both methods of application are listed as follows:

Method of application	Amount recommended per palm	Concentration recommended	Application intervals
Spraying on spear (use extended spray lance for taller palms)	500ml	2.5 ml / l	4 months
Soil drenching on root ball	2l / palm (less than 1.5m tall)	2.5 ml / l	4 months
	2l / palm (1.5 – 2.5m tall)	5 ml / l	4 months
	4l / palm (more than 2.5m tall)	5 ml / l	4 months

(Note: When applying any pesticides using soil-drenching method, the pesticide mixture should be applied at or around the drip line of the plant where the absorbing roots are.)

Imidacloprid is a systemic, chloro-nicotinyl compound. It works by interfering with the transmission of stimuli in the insect nervous system. This makes the chemical selectively more toxic to insects than to animals. It is taken up by plant roots and diffuses into the vascular system. Insects kill by ingesting the insecticides by sucking the plant sap. Target insects include beetles, sucking insects and others. Imidacloprid is sold under different trade names for different uses e.g. Confidor, Admire, etc.