

Efficacy and safety of APITHOR™ for the control of adult small hive beetles in bee hives

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Small hive beetle was detected in Australia in 2004 and following a survey was deemed to be non-eradicable. Since then it has spread along the eastern seaboard and been transported inland. Small hive beetle larvae can spoil honey, cause bees to abscond and destroy hives. The research into the insecticidal control of small hive beetles described in this paper culminated in the development of an insecticidal refuge trap comprising a fipronil-treated corrugated card held between two specially designed plastic shells. The device has been commercialised under the tradename APITHOR by Ensystem Pty. Ltd. and is being manufactured in Thailand. Safety and residue trials with APITHOR™ showed no significant differences in key indicators of hive health (frames of bees, area of brood and weight of honey produced) between 'control' and APITHOR™ treated hives. There was no evidence of any adverse effects on the bees. Moreover, no fipronil (or toxic metabolites) were detected in any honey produced while APITHOR™ was in place. Efficacy trials comparing 'control' with APITHOR™ treated hives demonstrated that APITHOR™ is highly effective in reducing adult beetle numbers.

