

DISTRIBUTION OF GREEN VEGETABLE BUG (*NEZARA VIRIDULA*) IN MACADAMIA ORCHARDS

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The green vegetable bug (GVB) is a key pest on macadamia, having a serious impact on the economic viability of macadamia growing in New Zealand. The reliability of monitoring GVB on nut bunches at eye-level was assessed by determining the height distribution of GVB damage within macadamia trees. Monitoring a subset of 15 trees within an orchard block to give a reliable estimate of GVB damage was also assessed. Results showed most GVB damage occurred in the bottom 2 m of the tree or above 4 m, with very little damage occurring in the middle 2-4 m region of the tree. These results indicate that limiting sampling to 0-2 m of trees will not under-estimate the GVB population present on the whole tree. Numbers of damaged nuts for each tree within the block were variable, indicating that GVB distribution is patchy. A sampling plan consisting of monitoring 10 nut bunches at eye level on 15 trees within a block was found to give a reliable estimate of the GVB population in a block. The relationship between nut damage and the average number of GVB found on each sampling occasion was also determined.

IDENTIFYING AGENTS OF POPULATION MODERATION FOR CLOVER FLEA (*SMINTHURUS VIRIDIS*) IN PASTURE

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Clover flea (*Sminthurus viridis*) occurs throughout New Zealand. It can have a significant impact on the profitability of farm operations in some regions, whereas in other regions where both the farming operations and climate are similar, it is not perceived as a problem. Where clover flea populations reach pest proportions they can severely damage clover plants, reducing the quality of the feed supply. In addition they will move on to and consume weeds and grasses when the clover content is depleted. The results of 'one off' spring surveys of pastures carried out in the Wairarapa, Taranaki and Northland regions to identify and quantify both clover flea and potential predators are reported and discussed. The surveys indicated that the predatory mites *Bdellodes lapidaria* and *Pergamasus* sp. may play a role in moderating pasture damage from clover flea.