

# The Improvement Techniques for Capture of the Flea Beetle,

## *Phyllotreta striolata*(Fab) on Crucifer Vegetables.

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### ABSTRACT

Preference studies were conducted to determine which kind of trap was the most effective to catch the flea beetle, *Phyllotreta striolata*(Fab ) from seven color sticky traps. The results indicated that the yellow sticky trap could capture about 2.27 times of flea beetles more than the blank one. However, green sticky and the blank traps were the least attractive efficiency. The attractive test was carried on from several volatile chemicals combined with yellow sticky trap against the flea beetle. Our results showed that the trap with allyl-isothiocyanate could capture the greatest number of *P. striolata*(Fab), while compared with a commercial yellow sticky trap, the attractive ratio for the yellow sticky trap with ally- isothiocyanate was over 12.88 times, and next good attractive ratios were 4.80, 3.44, and 1.20 folds for ethyl-isothiocyanate, mustard oil and benzyl-isothiocyanate, respectively. On the other hand, a serial concentration of allyl-isothiocyanate such as 0.5, 1,10,20,40, 80, and 100% on yellow or blue sticky traps were also determined their attractive efficiency to catch the flea beetle. The results indicated that the 1% allyl-isothiocyanate combined with yellow trap had the most attractive efficiency, it could capture 2.68 folds of beetles more than the blank one, but it didn't have the same result when the 1% allyl-isothiocyanate with blue traps were used in this experiment.

Keywords: *Phyllotreta striolata*(Fab), yellow sticky trap, volatile chemicals.

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