Antifeedant activity of five plant ingredients against the general cutworm, Spodoptera litura (Lepidoptera: Noctuidae)

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The general cutworm, *Spodoptera litura (Lepidoptera: Noctuidae)* is a worldwide distributed omnivorous and polyphagous pest. Chemical prevention is easy to cause environmental pollution and other problems. It is necessary to choose a candidate green and harmless novel insecticide. In this study, the antifeedant activities of camphene, eugenol, cantharidin, berberine and norcantharidin were measured. The results show that cantharidin and norcantharidin also have good antifeedant activity. Among them, antifeedant activity of cantharidin at 0.001 mg/mL still higher than 50%. The results show that the antifeeding rate of camphene was 79%, followed by eugenol and berberine, which were 68% and 66% at 4 mg/mL, respectively. Therefore, they may be a good potential antifeedant can be used as a new type of green pesticide to adapt to the development trend of pesticides and people's needs.

Key words: Camphene; Spodoptera litura; Antifeedant; Plant-derived pesticides; Cantharidin.