

研究报告

非嗜食植物乙醇提取物对小菜蛾种群的控制作用研究

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摘要

应用作用因子生命表方法以及在此基础上提出的干扰作用控制指数法评价了几种非嗜食植物乙醇提取物对小菜蛾 (*Plutella xylostella*) 种群的控制作用.结果表明, 非寄主植物的乙醇提取物(浓度为0.01 g·ml⁻¹) 即飞机草 (*Eupatorium odoratum*)、马缨丹 (*Lantana camara*)和蟛蜞菊 (*Wedelia chinensis*)对保护菜心免受小菜蛾为害起着明显的作用, 这些作用物质在处理区的干扰作用控制指数分别为0.110、0.136和0.165, 对小菜蛾的防治效果可达89.0%、86.4%和83.5%.可见, 3种供试作用物质对小菜蛾种群起着重要的控制作用.

关键词 [小菜蛾; 次生化合物; 生命表; 干扰作用控制指数](#)

分类号

Suppressive effects of non-preferable plant alcohol extracts on diamondback moth *Plutella xylostella* population

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Abstract

In this paper, a life table and an interference index of population control (IIPC) were used to evaluate the effects of spraying the alcohol extracts of non-preferable plants on the dynamics of diamondback moth (*Plutella xylostella*) population. The results showed that the alcohol extracts of *Eupatorium odoratum*, *Lantana camara* and *Wedelia chinensis* were available to protect kidney bean from *Plutella xylostella* infestation. Their IIPC were 0.110, 0.136 and 0.165, and the efficacies of controlling *P. xylostella* were 89.0%, 86.4% and 83.5%, respectively, compared with control.

Key words

[Plutella xylostella](#) [Secondary plant substance](#) [Life table](#)
[Interference index of population control](#)

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