

研究报告

小菜蛾幼虫对不同寄主的取食嗜好性及其适宜性

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摘要 对不同寄主种类、不同寄主形态和不同寄主饲喂的小菜蛾(*Plutella xylostella*)幼虫之间的取食嗜好性比较试验表明, 小菜蛾幼虫优先取食大白菜、萝卜或菜心幼苗, 其次为油菜和甘蓝幼苗, 在大白菜与油菜幼苗之间的取食选择比例是93.33%和6.67%; 在甘蓝与菜心幼苗之间的取食选择比例是16.67%和83.33%。小菜蛾幼虫的取食嗜好性受饲喂寄主种类的影响, 偏食大白菜或菜心幼苗。小菜蛾幼虫选择寄主取食的次序与寄主体内可溶性糖或淀粉含量没有明显关系, 但与两者的相对量呈一定的负相关。取食大白菜或菜心幼苗的小菜蛾生长良好, 单头取食达0.583~0.637 cm², 单头体重达2.07~2.18 mg, 与取食甘蓝或油菜幼苗的幼虫在取食量、个体发育方面有明显差异。小菜蛾幼虫也喜好取食已经被虫危害过的幼苗。

关键词 [小菜蛾](#) [取食嗜好性](#) [十字花科蔬菜](#)

分类号

Feeding preference of *Plutella xylostella* (Lepidoptera: Plutellidae) larva to its hosts

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Abstract

The feeding experiment with different sorts of Brassica vegetable crops showed that *Plutella xylostella* larva preferred the seedlings of Chinese cabbage (*Brassica campestris* L.), radish (*Raphanus sativus* L.) and caixin (*Brassica campestris* L.) to those of rape (*Brassica napus* L.) and cabbage (*Brassica oleracea* L.), with a selection proportion of 93.33% and 6.67% between Chinese cabbage and rape, and of 16.67% and 83.33% between cabbage and caixin. On the whole, the feeding preference of *P. xylostella* larva was less related to the contents of soluble glucide and starch in the vegetables, but had a definite negative correlation to the content ratio of these compounds. The *P. xylostella* larva fed with Chinese cabbage and caixin grew better than that fed with rape and cabbage, and the feeding amount and body weight of per larva were 0.583~0.637 cm² and 2.07~2.18 mg, respectively. The larva preferred damaged vegetable seedlings, too.

Key words [Plutella xylostella](#) [Feeding preference](#) [Brassica vegetable crops](#)

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