应用生态学报 2007 18 (02): 451-455 ISSN: 1001-9332 CN: 21-1253/Q

综合评述

烟粉虱的飞行行为与害虫综合治理策略

周福才[1], 王勇[1], 任顺祥[2], 祝树德[1], 周泽华[3]

[1]扬州大学园艺与植物保护学院， 江苏扬州 225009；

[2]华南农业大学， 广州 510642；

[3]江苏兴化市植保站， 江苏兴化 225700

收稿日期 2006-1-26 修回日期 2006-11-8 网络版发布日期 2007-3-21 接受日期

摘要 烟粉虱具有较强的飞行潜力，飞行高度可以超过150 m，在田间的扩散距离最远可以超过150 km，但在食源丰富地区，较少作远距离的扩散，绝大部分飞行高度在距地面0.5 m左右. 烟粉虱具有搜索飞行和迁飞飞行特性，它是寻找适宜寄主和扩大生境的重要方式. 烟粉虱不具备“卵子发生与飞行共轭”的典型特征. 可见光、温湿度、寄主质量和风等是影响烟粉虱飞行行为的重要生态因子. 本文对烟粉虱的飞行能力、飞行生理学和影响飞行的生态因子进行了综述，对非露地越冬区利用烟粉虱的飞行特性实施IPM策略进行了探讨.

关键词 烟粉虱 飞行行为 害虫综合治理

分类号

Flight behaviors of *Bemisia tabaci* and corresponding IPM strategies

ZHOU Fu-cai[1], WNAG Yong[1],REN Shun-xiang[2], ZHU Shu-de[1], ZHOU Ze-hua[3]

[1]College of Horticulture and Plant Protection, Yangzhou University, Yangzhou 225009, Jiangsu, China；

[2]South China Agricultural University, Guangzhou 510864, China;

[3]Plant Protection Station of Xinghua City, Xinghua 225700, Jiangsu, China

Abstract

Bemisia tabaci, a pest insect with stronger capabilities of flying and host plant-exploitation, is capable of flying 150 m high and over a distance as far as 7 km, but hardly flies higher than 0.5 m and long distance in food abundant areas. *B. tabaci* has the characteristics of both searching- and migrating flying, which enable it to exploit and locate on suitable hosts. Up to now, no oogenesis-flight syndrome of *B. tabaci* has been detected. Visual spectrum, air temperature and relative humidity, host quality, and wind speed are the main factors affecting the flight behavior of *B. tabaci*. In this paper, the flying capability of *B. tabaci* and the factors affecting its flight behavior were summarized, and the corresponding IPM strategies in the areas where *B. tabaci* could not overwintering in open field were discussed.

Key words *Bemisia tabaci*； flight behavior； IPM (integrated pest management) strategy

DOI:

通讯作者