云南农业大学学报　2005 20 (5): 646-650　ISSN: 1004-390X　CN: 53-1044/S

植物保护

花椒瘿蚊幼虫空间分布型及抽样技术的研究*

黄燕丽[1],朱元[1],李强[1**],李正跃[1**],宋家雄[2],张汉学[2],赵高慧[2]
（1.云南农业大学植物保护学院，云南 昆明 650201；
2.云南省昭通市植保植检站，云南 昭通 657000）

收稿日期 2005-3-28　修回日期

摘要　通过运用5种聚集度指标和2种回归分析方法对花椒瘿蚊幼虫的空间分布型和抽样技术进行了研究。所有的指标表明，花椒瘿蚊幼虫在一切密度下均呈聚集分布，分布的基本成分是个体群，且个体间相互吸引；聚集原因是由昆虫本身的聚集行为与环境异质性共同作用所致。数理统计分析结果表明虫口密度在植株的东、南、西、北4个方位无显著差异；植株中部虫口密度较上部和下部大，差异显著，而上部和下部的虫口密度无显著差异。在以上研究结果的基础上确定出不同虫口密度下的最适抽样数模型及一定防治指标下的序贯抽样模型。

关键词　花椒瘿蚊；　空间分布型；　抽样技术
分类号　S 431.16

Study on Spatial Distribution Patterns and Sampling Techniques of *Asphondylia zathoyli* Larvae

HUANG Yan-li[1], ZHU Yuan[1], LI Qiang[1], LI Zheng-yue[1],SONG Jia-xiong[2], ZHANG Han-xue[2],ZHAO Gao-hui[2]

（1.College of Plant Protection, Y A U, Kunming 650201, China;
2.Plant Protect Station of Zhaotong,　Yunnan Province, Zhaotong 657000, China）

Abstract
The spatial pattern of *Asphondylia zathoyli* larvae was examine by using five indices of aggregation and two regression models. All indices indicated that the distribution of the larvae in the fields was belongs to the aggregate pattern. The larvae occurred as individual groups and the individual was aggregated. The aggregation was caused by both its behavior and environmental heterogeneity. The result of mathematical analysis demonstrated that, on a tree, the larvae density was not significantly different at the position in East, South, West and North directions, and between the middle and upper, and the middle and lower position of the tree. The larvae density on the middle position was higher than the upper as well as the lower position of the tree, and was remarkable difference between them. The suitest sampling quantity model of the different larvae density and the sequential sampling model at fixed control levels were presented on the base of the spatial pattern analysis.

Key words　*Asphondylia zathoyli*；spatial distribution pattern；sampling technique

DOI:

通讯作者　李强;李正跃