

研究报告

# 两种除草剂对棉田节肢动物群落多样性指数的影响

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## 摘要

系统地研究了棉田地面和棉株节肢动物群落及各亚群落施用克无踪(A)、高盖(B)与对照(CK)之间在群落生物多样性、丰富度和均匀度的差异.结果表明,对地面肉食动物群落生物多样性(H')的A-CK的t值为3.099,B-CK的t值为2.449,  $t > t_{0.05} = 2.228$ ,差异显著;地面植食动物亚群落的(H') A-CK的 t 值为2.377,A-B为2.260,  $t > t_{0.05} = 2.228$ ,差异均显著.棉株节肢动物群落及亚群落A-CK、B-CK和A-B之间差异不显著.地面节肢动物亚群落丰富度A-CK的t值为4.759,地面植食类节肢动物亚群落为4.359,地面肉食节肢动物亚群落为2.963,均  $t > t_{0.05} = 2.228$ ,表明A与CK之间差异显著;在均匀度上,A和B及A-CK、B与CK之间两类群落及亚群落上差异均不显著.A和B对棉株节肢动物群落影响很小.施用A和B及CK的生物多样性的变化总趋势一致.

关键词 [棉田](#); [除草剂](#); [节肢动物群落](#); [多样性指数](#)

分类号

## Effects of herbicides on diversity indices of cotton field arthropod community

### Abstract

This paper studied the differences of the diversity,abundance and evenness of arthropod community and sub-community in cotton field among treatments haloxyfor k (A),paraquat (B) and contrast (CK).The results showed that in the diversity of phytophagous sub community,  $t_{A-CK} = 3.099$  and  $t_{B-CK} = 2.449$  ( $t > t_{0.05} = 2.228$ ),the difference being significant,and in the diversity of predatory sub community,  $t_{A-B} = 2.260$  and  $t_{A-CK} = 2.377$  ( $t > t_{0.05} = 2.228$ ),the difference being also significant.In the arthropod community and sub community,no significant difference was found for A-CK,B-CK and A-B.The abundance of arthropod community  $t_{A-CK} = 4.359$ ,and that of phytophagous sub-community  $t_{A-CK} = 2.963$ ,the effect being all significant ( $t > t_{0.05} = 2.228$ ).No significant difference was found in the evenness of arthropod community and sub-community for A-B,A-CK and B-CK.The biodiversity had the same change trend for treatments haloxyfor R (A) paraquat (B) and contrast (CK).

Key words [Cotton field](#) [Herbicide](#) [Arthropod community](#) [Diversity index](#)

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