15a18SETEMBRO2013
Bonito Mato Grosso do Sul Brasil
13º Siconbiol
Faça Bonito. Use Controle Biológico.
PROMOÇÃO
SOCIEDADE ENTOMOLÓGICA DO BRASIL · 1972 ·
REALIZAÇÃO
Embrapa Agropecuária Oeste
UFGD Universidade Federal da Grande Dourados

Association between *Cycloneda sanguinea* (Coleoptera: Coccinelidae) and aphids in cotton-fennel intercropping system

Francisco S. Fernandes[1,2]; Francisco de S. Ramalho[1]; Wesley A. C. Godoy[2]; José B. Malaquias[1]

[1]Embrapa Algodão, Caixa Postal 174, 58428-095 Campina Grande, PB, Brasil. Email: salesfernandes@usp.br. [2]Programa de Pós-Graduação em Entomologia. Universidade de São Paulo (USP), Escola Superior de Agricultura Luiz de Queiroz (ESALQ), Caixa Postal 9, 13418-900 Piracicaba, SP, Brasil.

The aphids cause damage on the field crop system, but some natural enemies can reduce their damages. The relationship predator-prey in fennel and cotton with colored fibers is important to ecologic interaction and integrated pest management. The objective of the study was to analyze the association degree between *Hyadaphis foeniculi* or *Aphis gossypii* and *Cycloneda sanguinea* on sole fennel, sole cotton or cotton-fennel intercropped to try reduce aphid populations and increase the predator populations over the time. The study was carried out at Experimental Station of Embrapa - Algodão, Paraiba, Brazil, in dark latossoil, under dryland conditions. A randomized block design was used with three treatments: (1) sole fennel, (2) sole cotton and (3) cotton with colored fiber intercropped with fennel in four replicates. The cotton aphid, fennel aphids and *C. sanguinea* presence-absence were evaluated in both crop systems during 2009, 2010 and 2011 seasons. The data were analyzed with X^2 and cluster analysis, using the software's R and SAS. There were positive associations between *C. sanguinea* and *A. gossypii* in sole cotton or cotton-fennel intercropping in 2010 (X^2 = 8.69, *P* = 0.0032; X^2 = 10.98, *P* = 0.0009) and in 2011 (X^2 = 13.65, *P* = 0.0002; X^2 = 11.20, *P* = 0.0008) or between *C. sanguinea* and *H. foeniculi* in sole fennel or fennel-cotton intercropping in 2009 (X^2 = 17.23, *P* = 0.0000; X^2 = 10.10, *P* = 0.0015) and in 2011 (X^2 = 10.14, *P* = 0.0014; X^2 = 9.51, *P* = 0.0020). *A. gossypii* and *H. foeniculi* time of occurrences were independently each other in the intercropping system in 2010 and 2011 seasons (X^2 = 0.02, *P* = 0.8848; X^2 = 1.43, *P* = 0.2311). *C. sanguinea* occurrence was usually associated with the intercropping systems in function of *A. gossypii* and *H. foeniculi* occurred in the crops over the years. These results contributed to *A. gossypii* and *H. foeniculi* control in intercropping systems.

Key-words: intercropping system, association, integrated pest management.

Support: CAPES, ESALQ