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**BOOK OF ABSTRACTS**



## Biological control of twospotted spider mite in landscape bedding plants

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### Abstract

Florida's landscape is a highly managed one of home and condominium lawns, business landscapes, institutional grounds, parks, etc. and includes flowers, turf grass, trees, shrubs, bedding plants, etc. Landscape care businesses often are in charge of arthropod management and maintain aesthetics and health of plants while protecting citizens and the environment. Properly applied, commercial management includes regular scouting, identifying pests and beneficials, assessing the landscape's ecological status, and applying interventions as needed. When pesticides are required, minimal areas are treated. Biological control is desired, but information is lacking. The twospotted spider mite, *Tetranychus urticae* Koch (Acari: Tetranychidae), is a pest of landscape bedding plants and often requires control. Miticides are available but their use often is objectionable in the landscape. Experiments were performed to evaluate a single release of *Phytoseiulus persimilis* Athias-Henriot (Acari: Phytoseiidae) predatory mites for spider mite control in marigold (*Tagetes patula* L.) landscape plant beds in comparison to a miticide and an untreated control. Programs of the miticides abamectin, bifenazate, and hexythiazox controlled the spider mites exceptionally well. *P. persimilis* applied at 3-5 predators per plant controlled the spider mites after about 5-6 weeks. Some spider mite damage occurred to plants before predators gained control. *P. persimilis* can be used effectively to manage spider mites in bedding plants and eliminate objections to miticides in the landscape.

## Insects associated to *Heliconia* spp. inflorescences used as ornamental plants

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### Abstract

The exotic and colored inflorescence and green foliage of most *Heliconia* species are characteristics that permitted the use of this tropical plants as ornamental plants. The inflorescences consist of bracts could accumulate exudates, water and floral parts that favor insects occurrence. This aspect should be taken into consideration for the heliconia indication, selection and management as ornamental plants. The objective of this study was to evaluate the insects associated to *Heliconia* spp. inflorescences used as ornamental plants. From March 2005 to March 2006, the insects from *Heliconia* spp. inflorescences from the UFRPE Heliconia Collection, in Pernambuco-Brazil were collected. The flowering period, inflorescence color, position and number of bracts was consider to analyze the insects infestation. The genotypes *H. pseudoaemygdiana*, *H. rauliniana*, *Heliconia x nickeriensis*, *H. psittacorum x H. spathocircinata* cv. Alan Carle, *H. psittacorum* cvs. Suriname Sassy, Strawberries & Cream, Red and Red Gold Opal and *H. latispatha* cv. Yellow-Red Gyro present less than 20% of infested inflorescences, however, it occurred in more than 50% of the assessed months, excepted for *H. pseudoaemygdiana* and *H. rauliniana*. It was observed difference in infested inflorescence frequencies values between the genotypes with erect and pendent inflorescences, and between genotypes cultivated in full sun and half shade. The months of highest temperature demonstrate the highest infested inflorescence frequency.