

**Faculty of Agriculture  
Goce Delcev University - Stip**



**2<sup>nd</sup> INTERNATIONAL MEETING  
AGRISCIENCE & PRACTICE  
(ASP 2019)**

**BOOK OF ABSTRACTS**

**12<sup>th</sup> April 2019  
Stip, Republic of North Macedonia**

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**Organized by**

**FACULTY OF AGRICULTURE  
GOCE DELCEV UNIVERSITY - STIP, REPUBLIC OF NORTH MACEDONIA  
12 April 2019, Stip, Republic of North Macedonia**

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# **AGRICULTURAL ECONOMICS**

**THE USE OF PREDATORS FOR THE CONTROL OF *Frankliniella occidentalis* (Thysanoptera: Thripidae) FOR PEPPER IN PROTECTED AREA** Dusan Spasov<sup>1\*</sup>, Biljana Atanasova<sup>1</sup>, Dragica Spasova<sup>1</sup>, Mite Ilievski<sup>1</sup>

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**Abstract**

Although chemical pesticides play a vital role in controlling the number of harmful insects, they also contribute to accelerated pollution of soil, air and water. Due to the frequent use, insects become resistant to active ingredients very quickly, they destroy the natural enemies of the pests, and have a harmful effect on humans. It is a method of controlling pests such as insects, mites, weeds and plant diseases using other organisms. It relies on predation, parasitism, herbivory, or other natural mechanisms. Accordingly, the application of biological protection, that is, the use of living organisms (predators and parasites) in plant protection programmes in protected areas, takes on a larger scale worldwide rather than the use of chemical pesticides. The aim of our research was determining the effectiveness of predatory mite *Amblyseius swirskii* (Mesostigmata: Phytoseiidae) and predatory bug *Orius laevigatus* (Hemiptera: Anthocoridae) on reducing the population of Western flower thrips (*Frankliniella occidentalis*). Experiment was set in greenhouses in Strumica region, in three localities (Prosenikovo, Banica, Dabile), during 2018, in a commercial pepper production. The results obtained correspond to our expectation in controlling the population of the trips. Predators proved to be effective in reducing the number of thrips population.

**Key words:** pepper, Western flower thrips, *Amblyseius swirskii*, *Orius laevigatus*