

**PLANT PROTECTION SOCIETY OF SERBIA (PPSS)
ОБЩЕСТВО ПО ЗАЩИТЕ РАСТЕНИЙ СЕРБИИ (ОЗРС)**

IOBC-EPRS and IOBC-WPRS
МОББ-ВГРС и МОББ-ЗГРС

National plant protection societies from Bosnia and Herzegovina,
Bulgaria, the Czech Republic, Croatia, Slovenia,
North Macedonia and Hungary

Национальные общества по защите растений Боснии и Герцеговины,
Болгарии, Чешской Республики, Хорватии, Словении,
Северной Македонии и Венгрии

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**VIII CONGRESS ON PLANT
PROTECTION:**

Integrated Plant Protection for Sustainable Crop Production and Forestry

**VIII КОНГРЕСС ПО ЗАЩИТЕ
РАСТЕНИЙ:**

**Интегрированная защита растений для устойчивого растительного
производства и лесного хозяйства**

Book of Abstracts / Сборник тезисов

November 25-29, 2019, Zlatibor, Serbia
25-29 ноября 2019 года, Златибор, Сербия

VIII CONGRESS ON PLANT PROTECTION VIII КОНГРЕСС ПО ЗАЩИТЕ РАСТЕНИЙ

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PREFACE

The Plant Protection Society of Serbia (PPSS), two sections of the International Organization for Biological and Integrated Control (IOBC-EPRS and IOBC-WPRS), in cooperation with national plant protection societies from Bosnia and Herzegovina, Bulgaria, Czech Republic, Croatia, Slovenia, North Macedonia, and Hungary organize the **VIII CONGRESS ON PLANT PROTECTION convened under the motto: Integrated Plant Protection for Sustainable Crop Production and Forestry**. The Congress intends to promote knowledge exchange and international cooperation, and to enable further exchange of up-to-date scientific and technical information on plant protection in agriculture, forestry and landscaping among researchers, teachers, experts in extension and public services and business community. World renowned experts in plant protection are invited to give keynote lectures to present the latest developments in their research fields. The Congress should contribute to identifying new approaches, tools and techniques to meet future needs and challenges facing the science of crop protection.

Conveners

Brankica Tanović – President of PPSS

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ПРЕДИСЛОВИЕ

Общество по защите растений Сербии (ОЗРС), две секции Международной организации по биологической и интегрированной защите (IOBC-EPRS and IOBC-WPRS), в сотрудничестве с национальными обществами по защите растений Боснии и Герцеговины, Болгарии, Чешской Республики, Хорватии, Словении, Северной Македонии и Венгрии организуют **VIII КОНГРЕСС ПО ЗАЩИТЕ РАСТЕНИЙ**. Целью Конгресса является активная популяризация обмена знаниями и международного сотрудничества, а также обеспечение возможности дальнейшего обмена актуальными научными и технологическими знаниями в области защиты растений в сельском хозяйстве, лесном хозяйстве и ландшафтной архитектуре между исследователями, преподавательскими кадрами, специалистами данных областей, государственными службами и хозяйственниками. Надеемся, что этот Конгресс будет способствовать поиску новых подходов, решений и техник обеспечения будущих потребностей и преодолению вызовов, с которыми наука в области охраны растений будет сталкиваться. Всемирно известные и признанные специалисты по защите растений приглашены представить новейшие результаты в областях своих исследований.

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was carried out. Monitoring was conducted diagonally across the field, by examining 20 randomly selected plants. Inflorescence, fruit, leaf and shoot samples with symptoms caused by fungi were first identified visually and collected for further microbiological and molecular identification. For fungal isolates that could not be identified morphologically, DNA was extracted and ITS region was amplified using primers ITS1-F (5'-CTTGGTCATTTAGAGGAAGTAA-3') and ITS4 (5'-TCCTCCGTTATTGATATGC-3'), sequenced and identified using NCBI BLAST[®] database. More than 300 fungal isolates were obtained and the most frequent were within genera *Botrytis*, *Fusarium* and *Monilinia*. Potentially pathogenic fungi isolated from fruit with rot and spots belonged to genera *Botrytis*, *Fusarium*, *Monilinia*, *Neofabraea*, *Alternaria*, *Diplodia*, *Phyllosticta*, *Diplocarpon*, *Colletotrichum*, and potentially non-pathogenic fungi belonged to genera *Epicoccum*, *Trichoderma*, *Cladosporium*, *Aspergillus* and *Aureobasidium*. Fungi isolated from leaves with symptoms of spots were identified as *Phoma* sp., *Monilinia* sp., *Botrytis* sp., *Fusarium* sp., *Alternaria* sp., *Colletotrichum* sp., *Neofabraea* sp., *Diplodia* sp., *Ramularia* sp., *Phyllosticta* sp., *Epicoccum* sp., *Trichoderma* sp., *Cladosporium* sp. while *Septoria* sp., *Fusarium* sp., *Monilinia* sp., *Neofabraea* sp., *Phoma* like fungi, *Diplodia* sp., *Alternaria* sp. and *Botrytis* sp. were associated with damages on inflorescence and shoots. On the basis of the obtained identification results, it can be concluded, that a large part of fungi previously detected in plants of family *Rosaceae* are characteristic in Japanese quince too. Further investigations are needed to explore the pathogenicity of fungi obtained from Japanese quince during this study.

Poster/Постер

In vitro nematocidal screening of some oils from citrus plant

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Essential oils (EOs) have historically been used for centuries in folk medicine, and nowadays they seem to be a promising control strategy against wide spectra of pathogens, diseases, and parasites. Studies on free-living nematodes are scarce. The free-living microbivorous nematode *Panagrolaimus* sp. was chosen as the test organism. The nematode possesses extraordinary biological properties, such as resistance to extremely low temperatures and long-term survival under minimal metabolic activity. Fifty EOs from 22 plant families of gymnosperms and angiosperms were tested on *Panagrolaimus* sp. The aims of this study were to investigate the in vitro impact of EOs on the psychrophilic nematode *Panagrolaimus* sp. in a direct contact bioassay, to list the activity of EOs based on median lethal concentration (LC₅₀), to determine the composition of the EOs with the best nematocidal activity, and to compare the activity of EOs on *Panagrolaimus* sp. versus plant parasitic nematodes. The results based on the LC₅₀ values, calculated using Probit analysis, categorized the EOs into three categories: low, moderate and highly active. The members of the laurel family, i.e., *Cinnamomum cassia* and *C. burmannii*,

exhibited the best nematicidal activity. Aldehydes were generally the major chemical components of the most active EOs and were the chemicals potentially responsible for the nematicidal activity/tection of LChV-1 on apricot and sweet cherry in Serbia.

Poster/Постер

ADULT PHENOLOGY AND OVERWINTERING OF *Drosophila suzukii* (Diptera: Drosophilidae) POPULATIONS IN A SEMI-HIGHLAND AND A COASTAL CHERRY PRODUCING AREA OF GREECE

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The spotted wing drosophila, *Drosophila suzukii* (Matsumura), is a native pest of Eastern Asia that over the past 10 years has invaded all temperate regions of America and Europe. Females infest a list of soft and stone fruits such as cherries. Overwintering adults (females in reproductive diapause) are characterized by increased body size and darkened cuticle (winter morphs). Although *D. suzukii* was recorded for the first time in Greece in 2013, nothing is known regarding its bio ecology in cherry cultivations. Using a trap network, lured with apple cider vinegar, we recorded for a full year the population dynamics in commercial cherry orchards of a semi-highland and a coastal area of northern and central Greece, respectively. Additionally, in order to assess possible effects of temperature on the lifespan of the two populations and the two morphs, summer and winter morphs of both populations were exposed to 25°C and 15°C in constant laboratory conditions and mortality was recorded daily. Our results show that (a) adult flight peaked 2.5 months earlier in cherry orchards in the coastal than in the semi-highland area, (b) adult flight activity was consistent throughout the year, even during the autumn/ winter months in both areas, (c) winter morphs appeared in the semi-highland area 1.5 months earlier than in the coastal one, (d) summer morphs were active during winter only in the coastal area, and (e) winter morphs of both populations exhibited longer lifespan than summer morphs when exposed to 15°C, and shorter lifespan than summer morphs when exposed to 25°C. The successful overwintering and spring reproductive maturation of each population under the climatic conditions of the two areas is discussed in relation to the phenology of cherry varieties cul-