

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



**1<sup>st</sup> INTERNATIONAL MEETING  
AGRISCIENCE & PRACTICE (ASP 2018)**

**BOOK OF ABSTRACTS**

**10<sup>th</sup> - 11<sup>th</sup> May 2018  
Stip, Republic of Macedonia**

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**Organized by**

**FACULTY OF AGRICULTURE  
GOCE DELCEV UNIVERSITY - STIP, REPUBLIC OF MACEDONIA  
10-11 May 2018, Stip, Republic of Macedonia**

In the past ten years the educational, research and applicative activities of the Faculty of Agriculture – Stip, Goce Delcev University – Stip, contributed to the development of agriculture sector in the country and broader region.

The Faculty of Agriculture organizes the 1<sup>st</sup> International Meeting Agriscience & Practice (ASP 2018), giving an opportunity to the participants for presentation and discussion of original scientific and practical results in different fields of agriculture.

The 1<sup>st</sup> International Meeting Agriscience & Practice (ASP 2018) is organized with intention to bring together all agricultural stakeholders for sharing their knowledge, experience and obstacles. One of the main aims is to link research and field work in agricultural sector in the country and broader, giving it an international dimension.

The main goal of the Meeting is to connect and promote scientific achievements and practical knowledge presented in different thematic areas.

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## TABLE OF CONTENTS

<b>AGRICULTURAL ECONOMICS</b> .....	<b>9</b>
UNIVERSITY-ENTERPRISE KNOWLEDGE TRANSFER: CAN AGRICULTURE BE PRECISE? Kiril Bahcevandziev .....	10
DEVELOPMENT OF FAMILY BUSINESS IN TOBACCO PRODUCTION ACTIVITIES Silvana Pasovska, Trajko Miceski.....	11
TRANSITION PROCESSES IN AGRICULTURE IN THE REPUBLIC OF MACEDONIA WITH ACCENT ON THE VEGETABLE PRODUCTION Despina Popovska, Biljana Drvoshanova, Afrodita Ibushoska, Lazo Dimitrov, Jovan Azderski .....	12
ECONOMICAL PROFITABILITY OF TOMATO ( <i>Solanum lycopersicum</i> L.) OPEN - FIELD PRODUCTION Elenica Sofijanova, Ljupco Mihajlov .....	13
<b>PLANT BIOTECHNOLOGY</b> .....	<b>15</b>
APPLICATION OF PHYTOHORMONES IN IMPROVEMENT OF AGRICULTURAL AND HORTICULTURAL SPECIES IN <i>IN VITRO</i> AND <i>IN VIVO</i> CONDITIONS Liljana Koleva Gudeva, Fidanka Trajkova .....	16
<i>IN VITRO</i> MULTIPLICATION OF THE BALCAN ENDEMIC SPECIES <i>Stachys leucoglossa</i> Griseb. AND <i>Stachys balcanica</i> P.W.Ball. Desislava I. Mantovska, Ivalena I. Ilieva, Veneta M. Kapchina-Toteva, Zhenya P. Yordanova .....	17
EFFICIENT PROTOCOL FOR MICROPROPAGATION OF <i>Artemisia annua</i> L. Ely Zayova, Trendafil Nedev, Ludmila Dimitrova, Alexander Tomov, Detelina Petrova, Aneliya Raycheva, Ganka Chaneva.....	18
MICROPROPAGATION OF ORNAMENTAL PLANTS: PRACTICAL APPLICATION AND OPPORTUNITIES IN REPUBLIC OF MACEDONIA Ivana Velesanova, Fidanka Trajkova, Liljana Koleva Gudeva .....	19
CURRENT APPLICATION OF ANTHOR CULTURE AS A TOOL FOR IMPROVEMENT OF HORTICULTURAL CROPS Marija Pockovska, Fidanka Trajkova, Liljana Koleva Gudeva.....	20
MODULATION OF THE PRIMARY METABOLISM OF <i>Pisum sativum</i> L. BY GIBBERELLIC ACID Momchil Paunov, Hristijan Ivanov, Vasil Chavgov, Alexander Tomov, Victor Rashev, Anelia Raycheva, Ganka Chaneva, Miroslava Zhiponova.....	21
EVALUATION OF TOTAL PHENOLS IN ALFALFA ( <i>Medicago sativa</i> L.), COLLECTED FROM DIFFERENT LOCALITIES IN THE REPUBLIC OF	

MACEDONIA Valentina Butleska Gjoroska, Marija Krstikj, Ivana Jovanovska-Klincharska, Ana Cvetanovska, Lenka Cvetanovska, Liljana Koleva Gudeva..22

**PLANT PRODUCTION .....25**

EFFECT OF ABIOTIC AND BIOTIC STRESS AND CROP MANAGEMENT ON HEALTH CONDITION AND YIELD OF CEREALS Radivoje Jevtić, Vesna Župunski, Mirjana Lalošević, Novica Mladenov, Bojan Jocković .....26

DRONES AND THEIR APPLICATION IN PRECISION FARMING Marina Stoyanova, Vesselin Koutev .....27

EXAMINATION OF SOME QUALITY FEATURES OF OATS GROWN IN CONDITIONS OF ORGANIC PRODUCTION Adrijana Burovska, Dragica Spasova, Biljana Atanasova, Dusan Spasov, Mite Ilievski.....28

ORGANIC GRAIN CROPS IN INSTITUTE OF AGRICULTURE – KARNOBAT, BULGARIA Dina Atanasova, Vasilina Maneva .....29

ADVANCEMENT OF PRODUCTIVITY BREEDING OF WINTER OATS (*Avena sativa* L.) AT THE INSTITUTE OF AGRICULTURE IN KARNOBAT, BULGARIA Todorka Savova .....30

CHARACTERIZATION OF SOME DOMESTIC AND INTRODUCED COTTON VARIETIES IN THE AGRO ECOLOGICAL CONDITIONS OF STRUMICA REGION Lence Buseva, Dragica Spasova, Biljana Atanasova.....31

PREPARING MAIZE DESCRIPTIONS FOR DUS Stamen Dimitrov, Ivan Zhalnov, Chavdar Dochev.....32

TESTING OF GERMAN MAIZE HYBRIDS FOR ECONOMICAL QUALITIES Ivan Zhalnov, Stamen Dimitrov, Nikolay Georgiev .....33

VARIATION OF MORPHOLOGICAL PROPERTIES IN SOME VIRGINIA TOBACCO VARIETIES Milan Mitreski, Jane Aleksoski, Ana Korubin – Aleksoska, Marjan Trajkoski, Jordan Trajkoski .....34

AGROECOLOGICAL CONDITIONS FOR GROWING SOME HYBRIDS OF SUNFLOWER IN OVCHE POLE REGION Ivan Donev, Ljupco Mihajlov, Emilija Arsov, Sasa Mitrev .....35

EXAMINATION ON YIELD AND YIELD ASSOCIATED PARAMETERS IN DIFFERENT RICE GENOTYPES Kata Angelova, Verica Ilieva, Natalija Markova Ruzdik, Ilija Karov, Ljupco Mihajlov, Mite Ilievski.....36

PROTEIN PROFILE OF SOME GENOTYPES OF FLAX (*Linum usitatissimum* L.) IN THE STRUMICA REGION, REPUBLIC OF MACEDONIA Mite Ilievski, Biljana Atanasova, Dusan Spasov, Dragica Spasova, Verica Ilieva, Natalija Markova Ruzdik, Pavle Vuckov .....37

OPPORTUNITIES AND RECOMMENDATIONS FOR CULTIVATION OF CHICKPEAS ( <i>Cicer arietinum</i> L.) Monika Gligorova, Ljupco Mihajlov .....	38
GENETIC AND ENVIRONMENTAL EFFECT ON THE GRAIN YIELD OF SPRING BARLEY VARIETIES CULTIVATED IN THE REPUBLIC OF MACEDONIA Nenad Petkovski, Ljupco Mihajlov, Natalija Markova Ruzdik .....	39
STUDY OF QUANTITATIVE CHARACTERISTICS IN ORIENTAL TOBACCO GENOTYPES Ana Korubin – Aleksoska, Milan Mitreski, Jane Aleksoski, Mohammad Ayaz Ahmad, Sime Dojcinov, Zarko Bebic .....	40
THE EFFECT OF BACKCROSS METHOD IN TOBACCO BREEDING Jane Aleksoski .....	41
DEGUSTATIONAL PROPERTIES OF SOME BASMAK TOBACCO VARIETIES Karolina Kochoska, Milan Mitreski, Romina Kabranova, Ilija Risteski .....	42
<b>PLANT PROTECTION .....</b>	<b>43</b>
DETECTION OF <i>Pectobacterium carotovorum</i> subsp. <i>carotovorum</i> , BACTERIAL STALK AND HEAT ROT DISEASE ON SUNFLOWER SEEDS Mitrev Sasa, Kovacevik Biljana, Arsov Emilija.....	44
STUDY OF STOLBUR PHYTOPLASMA ON WINE GRAPEVINE VARIETY IN THE REPUBLIC OF MACEDONIA Tuckovska Biljana, Arsov Emilija, Mitrev Sasa ..	45
IMPACT OF AMPELOTECHNICAL MEASURES IN THE GRAPEVINE PROTECTION FROM OCCURRENCE OF GREY MOULD ( <i>Botrytis cinerea</i> ) Bojkov Gligor, Arsov Emilija, Mitrev Sasa .....	46
USE OF SOME ESSENTIAL OILS IN BIOLOGICAL CONTROL OF PLANT PATHOGENIC FUNGI Natalija Atanasova-Pancevska, Jane Bogdanov, Violeta Boskovska, Verica Peneva, Dzoko Kungulovski.....	47
EFFECTIVE CONTROL OF THE TOBACCO SEEDLINGS FROM DAMPING OFF DISEASE IN DUAL INFECTION IN BEDS Biljana Gveroska.....	47
IMPLEMENTATION OF MODERN IT TOOLS IN AGRICULTURAL PRACTICE Zoran Zdravev, Emilija Arsov, Fidanka Trajkova, Sasa Mitrev .....	49
<i>Xylella fastidiosa</i> – POSSIBLE THREAT IN PRODUCTION OF GRAPEVINE AND OLIVE TREES IN THE REPUBLIC OF MACEDONIA Kristina Manevska, Emilija Arsov, Sasa Mitrev .....	50
<b>QUALITY CONTROL AND FOOD SAFETY .....</b>	<b>51</b>
PARTICULAR FEATURES OF THE HORSE MEAT AGING Stefan G. Dragoev, Dessislava B. Vlahova-Vangelova, Dessislav K. Balev, Kolyo T. Dinkov, Aco Kuzelov.....	52



MONITORING UDDER HEALTH AND MILK HYGIENE ON-FARM USING QUICK SCREENING METHODS Dimitar Nakov, Metodija Trajchev .....	53
CHARACTERIZATION OF LEAD ISOTOPE RATIOS IN VARIOUS PLANT FOODS AND BEVERAGES WITH APPLICATION OF Q-ICP-MS Biljana Balabanova, Violeta Ivanova-Petropulos, Sasa Mitrev .....	54
DETERMINATION OF THE INFLUENCE OF CATTLE BREEDS ON THE COLOUR OF CALF MEAT Dimche Kitanovski, Vladimir Kitanovski, Elena Joshevska .....	55
SEASONAL CHANGES ON BOVINE BULK TANK MILK QUALITY FROM THREE REGIONS IN MACEDONIA Dusica Santa, Dimitar Nakov, Sonja Srbinovska, Metodija Trajcev .....	56
CHANGES IN FATTY ACID COMPOSITION OF POULTRY MEAT AFTER HEAT TREATMENT Mitre Stojanovski, Anita Čakarova, Aco Kuzelov, Elena Joshevska, Gordana Dimitrovska, Dzulijana Tomovska, Katerina Bojkovska .....	57
ANTIMICROBIAL ACTIVITY OF POMEGRANATE PEEL EXTRACTS FROM “KARAMUSTAFA” AND “IDŽIS” VARIETIES Violeta Dimovska, Fidanka Ilieva, Ljupco Mihajlov, Sanja Kostadinović Veličkovska, Biljana Kovacevik .....	58
<b>SOIL SCIENCE AND HYDROLOGY .....</b>	<b>59</b>
AEROBIC GRANULATION TECHNOLOGY FOR COST EFFICIENT MUNICIPAL AND INDUSTRIAL WASTEWATER TREATMENT <GRANULIS> Kungulovski Ivan, Kungulovski Dzoko .....	60
THE INFLUENCE OF THE PERLITE AS A SUBSTRATE FOR IMPROVING ON SOME WATER PROPERTIES ON THE FLUVIAL SOIL WITH AN APLICATION OF RETENTIONAL CURVES Vesna Markoska, Kiril Lisichkov, Blazo Boev, Rubin Gulaboski .....	61
<b>VITICULTURE, ENOLOGY AND FRUIT PRODUCTION.....</b>	<b>63</b>
THE EFFECT OF PRUNING ON FRIUTING CAPACITY OF MICHEL PALIERI TABLE GRAPE VARIETY, GROWING IN TIKVES VINEYARD Efremco Nikolov, Violeta Dimovska, Fidanka Ilieva .....	64
AGROBIOLOGICAL ESTIMATION OF GRAPEVINE VARIETIES FOR WHITE AND RED WINES Venelin Roychev, Angel Ivanov, Neli Keranova, Nikolay Tsaykin .....	65
VINEYARD IRRIGATON SYSTEMS CONTROLLED ONLINE THROUGH GSM MODULE Efremco Nikolov, Dimitrija Angelkov, Violeta Dimovska .....	66

# **Plant protection**

**STUDY OF STOLBUR PHYTOPLASMA ON WINE GRAPEVINE VARIETY  
IN THE REPUBLIC OF MACEDONIA** Tuckovska Biljana<sup>1</sup>, Arsov Emilija<sup>1\*</sup>,  
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**Abstract**

Phytoplasmas are microorganisms that besides the grapevine also attack other plant species, such as corn, tomato, pepper, periwinkle and some wild plants. The disease seriously modifies the structure of leaf the grapevine phloem, the chlorophyll content and the functioning of sink-source system. Insect vectors and insufficiently tested planting material are the most common way for the transfer of phytoplasmas to Macedonian vineyards. In the Republic of Macedonia, they are known under the name *yellowing* or *redness* on the grapevine. The characteristic symptoms occur on the leaves (yellowing / redness, bending of the edges to the inside of the nervous system), the rosters (incomplete retention), and the bugs (sputtering). The grapevine field crops visited in the period from October 2015 to September 2016, were fully and thoroughly analysed and the field analysis confirmed the presence of phytoplasmic disease. To prove phytoplasmas in the grapevine, the already established method for isolating DNA and molecular PCR reaction was used. Total number of 105 grapevine wine samples were collected from the Tikves vineyards in Macedonia. All samples were analysed on three stolbur specific genes: *tuf*, *stamp* and *vmp*, because all of the results on tested samples from vineyards in Macedonia, show the presence only on stolbur phytoplasma. The study continuously checks and confirms the present status of stolbur in the biggest vineyards in Macedonia, in Tikves regions.

**Key words:** grapevine, phytoplasma, yellowing, redness, DNA, PCR

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