

BOOK OF ABSTRACTS



 $October\ 28^{th}\ to\ 30^{th},\ 2021,\ Faculty\ of\ Agriculture,\ Goce\ Del\ \ \'ev\ University,\ \ \ \'etip,\ Republic\ of\ North\ Macedonia$



"2nd scientific conference for CRITICAL ENVIRONMENTAL ISSUES

OF THE WESTERN BALKAN COUNTRIES"

BOOK OF ABSTRACTS



$\begin{tabular}{ll} \begin{tabular}{ll} \beg$

October 28th to 30th, 2021, Faculty of Agriculture, Goce Delčev University, Štip, Republic of North Macedonia





ORGANIZERS:

Goce Delčev University, Faculty of Agriculture, Štip, Republic of North Macedonia

WBAA-Western Balkan Alumni Association

The conference is organized and financed within the project titled "Extracting Green-COVID effects for generating clean technologies and successful youth transition awareness for the climate change and sustainable development of the Western Balkan countries", project number 2021030, financed by Western Balkans Alumni Association.

"2
nd Scientific conference for CRITICAL ENVIRONMENTAL ISSUES OF THE WESTERN BALKAN COUNTRIES"

	INDOOR AIR QUALITY IN HOMES USING BIOMASS FOR HEATING				
	AND COOKING				
OP 2	KRISTINA PANEV, NATASA MAVROMIHAILOVA, VESNA ZAJKOVA PANEVA				
	UNILAB, Faculty of Agriculture, Goce Delcev University, Stip, North Macedonia				
	DETERMINATION OF CHLOROPHYLL IN A WATER SAMPLE	10			
	POSTERS				
P1	Katerina Bačeva Andonovska, Robert Šajn, Claudiu Tănăselia, Trajče	İ			
	Stafilov				
	LITHOLOGICAL DISTRIBUTION OF RARE EARTH				
	ELEMENTS IN SOILS FROM THE LOCALITY OF THE	İ			
	ABOUNDED Sb–As–TI MINE ALLCHAR, N. MACEDONIA	11			
P2	Adelina Haskaj-Kelmendi, Musaj Paçarizi				
	POLAROGRAPHIC STUDY OF HEAVY METALS (Cu, Ni and Cr)				
	COMPLEXES WITH ORGANIC LIGANDS	12			
P3	Violeta Stefanova, Vojo Mircovski				
	VENTIVE MEASURES FOR WATER PROTECTION OF POLLUTION				
	FROM THE CATCHMENT OF THE RIVER LOSANA – DELCEVO	13			
P4	Isak Nensi, Xhaxhiu K., Andoni A., Hamiti Xh., Hajrulai Z., Uzunov R				
	A STUDY OF ENDRIN AND PERMETHRIN PESTICIDES REMOVAL FROM AQUEOUS SOLUTIONS BYFOUR ALBANIAN NATURAL				
	CLAYS	1.4			
D5	Jordana Ninkov, Stanko Milić, Jovica Vasin, Milorad Živanov, Dušana	14			
P5	Banjac, Snežana Jakšić, Branka Mijić				
	POTENTIALLY TOXIC ELEMENTS IN AGRICULTURAL SOIL				
	OF CENTRAL SERBIA	15			
P6	Violeta Ivanova-Petropulos, Isidro Hermosín-Gutiérrez, Borimir Vojnoski				
10	CHARACTERIZATION OF MERLOT WINES BASED ON PHENOLIC				
	COMPOSITION DETERMINED BY HPLC-DAD-ESI-MS AND MS/MS				
	TECHNIQUE	16			
P7	Elida Dreshaj-Lecaj, Raife Mulliqi-Neziri, Musaj Paçarizi				
	ADSORPTION OF HEAVY METALS (Cu, Cd, Pb AND Zn) FROM				
	AQUEOUS SOLUTIONS USING ORANGE PEELS	17			
P8	Nikolinka Doneva, Marija Hadzi-Nikolova, Dejan Mirakovski,	l i			
	Afrodita Zendelska				
	REGIONAL WASTE MANAGEMENT IN REPUBLIC OF NORTH MACEDONIA: CASE STUDY FOR EAST AND NORTH-EAST	İ			
	PLANNING REGION	10			
P9	Granit Kastrati, Flamur Sopaj, Krste Tašev, Trajče Stafilov, Robert Šajn,	18			
Py	Musaj Paçarizi				
	A STUDY ON THE ELEMENTS CONTENT IN HONEY SAMPLES IN				
	THE TERRITORY OF KOSOVO	19			
P10	Aleksandar Piperevski, Violeta Ivanova-Petropulos, Atanas Runchev, Filip				
110	Kamchev				
	INFLUENCE OF DIFFERENT VINIFICATION TECHIQUES ON THE				
	PHENOLIC CONTENT OF VRANEC WINES	20			
P11	Violeta Hajdari, Burbuqe Demiraj, Flamur Sopaj, Elez Krasniqi,	21			

"2 $^{\rm nd}$ Scientific conference for CRITICAL ENVIRONMENTAL ISSUES OF THE WESTERN BALKAN COUNTRIES"

	Muhamet Zogaj, Granit Kastrati, Musaj Paçarizi	
	BIOACCUMULATION OF SOME METALS IN THE ENDEMIC PLANT	
	STACHYS SCARDICA IN THE REGION OF PRISHTINA, KOSOVO	
P12	Biljana Jordanoska Shishkoska, Valentina Pelivanoska, Marija Srbinoska DISTRIBUTION CHARACTERISTICS OF TRACE ELEMENT	
	CONTENT IN PELAGONIA TOBACCO GROWING REGION	22
D43	Ivona Sofronievska, Marinela Cvetanoska, Vlera Zendeli, Marina Stefova,	22
P13	Jasmina Petreska Stanoeva	
	ASSAY OF ORGANOCHLORINE PESTICIDES AND	
	POLYCHLORINATED BIPHENYLS IN AIR AND SOIL	
	SAMPLES FROM THE AREA AROUND A HCH DUMP SITE	23
P14	Maria Hoxhaj, Ilirjana Boci, Suada Rustani	23
P14	CALCINED CLAY CEMENT MANUFACTURING (LC ³)	24
P15	Sanja Kostadinović Veličkovska, Zoran Arsevski, Fidanka Ilieva, Daniela	
113	Dimovska,Aco Kuzelov	
	TOTAL BACTERIAL COUNT IN RAW MILK FROM THE FARMS	
	FROM REGION "OVČE POLE", REPUBLIC OF NORTH	
	MACEDONIA	25
P16	Burbuqe Demiraj, Violeta Hajdari, Flamur Sopaj, Elez Krasniqi,	
	Muhamet Zogaj, Granit Kastrati, Musaj Paçarizi	
	BIOACCUMULATION OF SOME METALS IN THE PLANT SEDUM	
	OCHROLEUCUM IN THE REGION OF PRISHTINA, KOSOVO	26
P17	Jovica Vasin, Snežana Jakšić, Milorad Živanov, Jordana Ninkov, Stanko	
	Milić, Dušana Banjac, Vladimir Ćirić	
	HUMUS CONTENT IN DIFFERENT SOIL TYPES IN	
	VOJVODINA PROVINCE, SERBIA - ANTHROPOGENIC	
	INFLUENCE	27
P18	Gligor Bojkov, Emilija Arsov,Saša Mitrev	
	DEVELOPMENT OF BOTRYTIS CINEREA UNDER REDUCTION OF	
	PESTICIDES TREATMENTS IN MACEDONIAN VITICULTURE	
	PRODUCTION	28
P19	Sanja Kostadinović Veličkovska, Zoran Arsevski, Fidanka Ilieva, Daniela	
	Dimovska, Aco Kuzelov	
	SOMATIC CELL COUNT AND PRESENCE OF AFLATOXIN M1 IN	
	RAW MILK FROM THE FARMS FROM REGION "OVČE POLE",	••
D 20	REPUBLIC OF NORTH MACEDONIA Cvetanka Kulukovska, Sasa Mitrev, Emilija Arsov	29
P20	USE OF REAL TIME METHODS FOR DIFFERENT INVESTIGATION	
	AT ENVIRONMENTAL PROTECTION	20
D21	Natalija Markova Ruzdik, Ljupco Mihajlov, Verica Ilieva, Biljana	30
P21	Kovacevik, Mite Ilievski, Nenad Petkovski	
	STUDY OF RELATIONSHIP BETWEEN YIELD AND YIELD	
	RELATED COMPONENTS IN SPRING BARLEY VARIETIES	
	USING MULTIVARIATE ANALYSIS	31
D22	Biljana Balabanova, Dragana Mileva	31
P22	ANALITCAL CHALLENGES FOR DETERMINATION OF	
	ELEMENTAL IMPURITIES IN PHARMACEUTICAL PRODUCTS	32
P23	Antonio Petrov, Fidanka Ilieva, and Sanja Kostadinović Veličkovska	
143		33

$\begin{tabular}{ll} \begin{tabular}{ll} \beg$

	CANNABIS-WINE, A NEW WORLD TREND OR STORY WITH A	T
	QUICK END	
P24	Fidanka Trajkova, Elizabeta Karakaseva, Sasa Mitrev	
P24	AGROCHEMICAL SOIL PROPERTIES AFTER CULTIVATION AND	
	HARVEST OF WHEAT	34
P25	Tina Petrova, Sasa Mitrev, Emilija Arsov	<u> </u>
1 23	IMPORTANCE OF HAZELNUT (CORYLUS AVELLANA) AND MOST	l
	COMMON DISEASES IN CULTIVATION IN THE REPUBLIC OF	l
	NORTH MACEDONIA	35
P26	Maja Chochevska, Elizabeta Jančovska Seniceva, Sanja	
120	Kostadinović Veličkovska, Galaba Naumova-Leția, Valentin Mirčeski	
	DETERMINATION OF QUALITY AND ANTIOXIDANT ACTIVITY OF	
	TRADITIONAL HOMEMADE FRUIT VINEGARS PRODUCED WITH	
	DOUBLE SPONTANEOUS FERMENTATION	36
P27	Fidanka Ilieva, Sanja Kostadinović Veličkovska, Violeta Dimovska	
	THE IMPACT OF AUTOCHTHONOUS AND COMMERCIAL YEAST	
	STRAINS ON FERMENTATION AND QUALITY OF WINES	
	PRODUCED FROM VRANEC GRAPE VARIETY FROM TIKVEŠ	ĺ
	WINE-GROWING REGION, REPUBLIC OF NORTH MACEDONIA	37
P28	Sanja Kostadinović Veličkovska, Natalija Markova Ruzdić, Ljupčo	İ
	Mihajlov, Emilija Arsov, Saša Mitrev, Ivan Donev	l
	PHYSICO-CHEMICAL CHARACTERIZATION, FATTY ACID	
	COMPOSITION AND THERMAL STABILITY OF COLD-PRESSED	
	SUNFLOWER OILS OBTAINED FROM 17 NEWLY CULTIVATED	
	HYBRIDS FROM THE REGION OF NORTH MACEDONIA	38
P29	Daniela Dimovska, Sanja Kostadinovik, Natalija Markova Ruzdik, Biljana	
	Kovacevik DIFFERENCES IN SOME QUALITY TRAITS BETWEEN RED AND	
	YELLOW CHERRY TOMATO VARIETIES GROWN IN REPUBLIC	
	OF NORTH MACEDONIA	39
P30	Daniela Dimovska, Sanja Kostadinovik, Natalija Markova Ruzdik, Biljana	39
P30	Kovacevik	
	THE EFFECT OF GENOTYPE ON SOME QUALITY TRAITS IN RED	
	CHERRY TOMATO	40
P31	Biljana Balabanova, Ivan Boev, Maja Lazarova	
131	FAST TRACE METALS DEPOSITION IDENTIFICATION IN CROSS-	
	IDENTIFICATION ANALISIS USSING ELECTRONIC MICROSCOPY	41
P32	Biljana Kovacevik, Sasa Mitrev, Ivan Boev, Natalija Markova Ruzdik,	
102	Blazo Boev	
	ONE FACTORIAL ANOVA IN ASSESSMENT OF GROUNDWATER	
	QUALITY IN VULNERABLE AREA OF AGRICULTURE POLLUTION	42
P33	Andrej Stankovski, Mihael Ivanov, Biljana Balabanova	
	MEDICAL CANNABIS: HISTORY AND CURRENT USE,	
	CHALLENGES AND RISKS	43

CANNABIS-WINE, A NEW WORLD TREND OR STORY WITH A QUICK END

Antonio Petrov, Fidanka Ilieva, and Sanja Kostadinović Veličkovska

Faculty of Agriculture, Goce Delčev University, Štip, Republic of North Macedonia

e-mail: probooktona@yahoo.com

Abstract

The combinations of herbs with alcohol and wine are as old as mankind. The need for sedatives and painkillers has long resulted from the mixing of herbs and alcohol, today's trend is a leap into another era of wine. The trend of popularizing Cannabis (*Cannabis sativa L.*) as a medicine and plant that can be most persistent in the fight against climate change and described as a modern savior of the 21st century, results in a cannabis-infused wine product. The big jump in the cannabis industry globally, even in our country, are just one of the indicators of its progression. Will consumers' need for tasty and relaxing drinks make or break, will the trend of cannabis as a lifeline for the globe continue, are these conclusions real, proven, and most importantly needed, or is it just a momentary euphoria that will end quickly? We will leave this on the time.

Legislation is being adapted in favor of cannabis all over the world, more and more cannabis infused products are appearing on the market. The story of cannabis has two sides, the side where the plant saves the world from climate change and pollution and the other where its cultivation requires huge resources of water, energy, use of pesticides, which in turn have a counter-effect.

The trend called Cannabis-Wine needs to be thoroughly investigated deep to the roots, and explanation to be given.

Our research has shown that the current trend and progression in the cannabis industry in Macedonia, as well as the wine industry which is one of the main agricultural branches in the country provides an opportunity for development of this type of product. The development of this trend on a global level will be reflected in our region.

Keywords: cannabis, wine, trend, medicine, climate change