



**PROCEEDINGS OF ABSTRACTS
II. INTERNATIONAL
BIOLOGICAL & LIFE SCIENCES
CONGRESS
BIOLIC 2024**

30 OCTOBER - 1 NOVEMBER, 2024

Megasaray Westbeach Hotel, Antalya, Turkey



**PROCEEDINGS OF ABSTRACTS
II. INTERNATIONAL
BIOLOGICAL & LIFE SCIENCES
CONGRESS
BIOLIC 2024**

30 OCTOBER - 1 NOVEMBER, 2024

Megasaray Westbeach Hotel, Antalya, Turkey

**Organized by
Trakya University
International Researchers Association**

**ISBN #:
978-625-95132-0-1**

WELCOME NOTES

You are welcome to our II. International Biological and Life Sciences Congress (BIOLIC) which is organized by Trakya University and the International Researchers Association. The congress will be held in Megasaray Westbeach Hotel, Antalya, Turkey, on 30 October – 1 November, 2024 will be normal as well as with online participation.

Our meeting is a premier international science, technology and business forum focusing on Agriculture, Biology and Life Sciences. The program will include oral talks by invited prominent scientists and oral and e poster presentations by participants in selected topics. The Congress is intended that the subjects to be kept broad in order to provide opportunity to the science and research community to present their works as oral or poster presentations in a friendly environment of Antalya, Turkey to share their knowledge and experience and benefit from each other.

The first meeting has been organized in Lviv, Ukraine in 2019 by Trakya University, with part of more than 200 participants from all over the world with 376 scientific papers. The 2nd congress will gather scientists from around the world, and present their recent achievements. The attendees will have ample opportunities for learning, reconnecting, engaging and networking with colleagues from academia and industry as well as meeting with various exhibitors.

As there have been many different scientific meetings around the world, we aimed to bring three different communities together, namely science, research and private investment groups considering practical information sharing that is of value for researchers and scientists from around the world, in a friendly environment of Antalya, Turkey to share their knowledge and experience and benefit from each other as well as prospects to overcome the limitation for sustainable crop production to feed the world.

There are 68 orals and 64 poster presentation in the congress both joining and presenting normal and online with 101 participants from 22 different countries from the world.

With care for our nature and environment, we aim the green congress, meaning that as little as possible papers will be used. Abstract book is published in electronic book and is distributed to the participants by e mail for online participants. All the e-posters are prepared in electronic form and then submit to via the congress e mail and exhibited in electronical poster boards as well as in online e poster hall in our web page during the congress.

Congress Topics:

Agriculture, Forestry, Life Sciences, Agricultural Engineering, Aquaculture and Biosystems, Animal Science, Biomedical science, Biochemistry and Molecular Biology, Biology, Bioengineering, Biomaterials, Biomechanics, Biophysics, Bioscience, Biotechnology, Botany, Chemistry, Chemical Engineering, Earth Sciences, Environmental Science, Food Science, Genetics and Human Genetics, Medical Science, Machinery, Pharmaceutical Sciences, Physics, Soil Science.

We would like to thank all of you for joining this congress and we would like to give also special thanks to our sponsors and collaborators for giving us a big support to organize this event.

Prof Dr Yalcin KAYA
Head of the Organizing Committee

ORGANIZING COMMITTEE

Prof. Dr. Yalcin KAYA	Trakya University, Turkey	Chair
Assoc Prof. Dr. Necmi BEŞER	Tragen Co, Trakya Technopark, Turkey	Co-Chair
Emrah AKPINAR	Trakya University, Turkey	Secretary
Prof. Dr. Ahmet ULUDAG	Onsekizmart University, Turkey	Member
Prof. Dr. Metin TUNA	Namik Kemal University, Turkey	Member
Prof. Dr. Viliana VASSILEVA	Inst. of Forage Crops, Pleven, Bulgaria	Member
Prof. Dr. Ioannis TOKATLIDIS	Trakia Democritus University, Greece	Member
Prof Dr Mohamed RAMDANI	University of Mohamed V Agdal, Maroc	Member
Assoc. Prof. Dr. Natiga NABIYEVA	Genetic Resources Inst. of NAS, Azerbaijan	Member
Asst Prof Dr Orhan ASKIN	Kirklareli University, Turkey	Member
Dr Maria PACUREANU	NARDI Fundulea Institute, Romania	Member
M. Ibrahim YILMAZ	Trakya Agricultural Research Inst., Turkey	Member

INVITED SPEAKERS

Prof Dr Mehmet INAN, Akdeniz University, Turkey
“Development of therapeutic antibodies and antibody fragments”

Assoc Prof Dr Cengiz IKTEN, Akdeniz University, Turkey
“Bioinformatics for Agriculture”

Prof Dr Can ERTEKIN, Akdeniz University, Turkey
“Greenhouse Gas (GHG) Emissions in Berry, Stone Fruits, Nuts and Citrus Production”

Prof Dr Viliana VASSILEVA, Kneja Maize Institute, Bulgaria
“Response of maize breeding to climate change”

EDITOR OF THE PROCEEDINGS ABSTRACT BOOK

Prof Dr Yalcin KAYA, Assoc Prof Dr Necmi BESER

SCIENTIFIC COMMITTEE

<u>NAME</u>	<u>INSTITUTION</u>	<u>COUNTRY</u>
Acad. Prof. Dr. Atanas ATANASSOV	Joint Genomic Center - Sofia	Bulgaria
Prof Dr Amel MIILA	ENSV, Alger	Algeria
Prof. Dr. Miguel CANTAMUTTO	IINTA Hilario Ascasubi Institute,	Argentina
Prof. Dr Zhao JUN	Inner Mongolia Agricultural Un.	China
Prof. Dr. Renata HORN	University of Rostock	Germany
Prof. Dr. Mulpuri SUJATHA	Indian Inst of Oilseeds Res.	India
Prof. Dr Lara HANNA WAKIM	Holy Spirit University	Lebanon
Prof. Dr Semra HASACEBI	Trakya University	Turkey
Prof Dr Velibor SPALEVIC	University of Montenegro	Montenegro
Prof Dr Charles BRENNAN	RMIT University	Australia
Prof. Dr. Saeed RAUF	University of Sargodha	Pakistan
Prof. Dr. h.c. Radu E. SESTRAS	Un of Agric.Vet Med Cluj-Napoca	Romania
Prof. Dr. Dejana PANKOVIC	Educon University	Serbia
Prof Dr Leonardo VELASCO	Inst. for Sustainable Agric. CSIC	Spain
Prof. Dr. Mehmet Emin CALISKAN	Nigde OmerHalisdemir University	Turkey
Prof. Dr Ahu ALTINKUT UNCUOGLU	Marmara University	Turkey
Prof. Dr. Sezen ARAT	Namik Kemal University	Turkey
Prof. Dr. Coskun GULSER	Ondokuzmayis University	Turkey
Prof. Dr. Metin AYDOĞDU	Trakya University	Turkey
Prof. Dr. Ismail CAKMAK	Sabancı University	Turkey
Prof. Dr. Yaroslav BLUME	National Academy of Sciences	Ukraine
Prof. Dr. Nurhan T. DUNFORD	Oklahoma State University	USA
Prof. Dr. Mahmut TOR	University of Worcester	England
Prof. Dr Ozlem TOKUSOGLU	Celal Bayar University	Turkey
Prof. Dr Mustafa TAN	Trakya University	Turkey
Prof. Dr. Gökhan KAÇAR	Trakya University	Turkey
Prof. Dr. Süleyman KÖK	Trakya University	Turkey
Assoc. Prof. Dr Zizis VRYZAS	Democritus University of Thrace	Greece
Assoc. Prof Dr Ina ZIVATKAUSKIENE	University of Applied Sciences	Lithuania
Assoc. Prof. Dr. Nooduan MUANGSAN	Suranaree Univ. of Technology	Thailand
Asst. Prof. Dr. Sarra JRIBI	University of Carthage	Tunusia
Asst. Prof. Dr. Buket AŞKIN	Kirklareli University	Turkey
Asst. Prof. Dr. Hayati ARDA	Trakya University	Turkey
Asst. Prof. Dr. Güzin TUNCA ALPASLAN	Trakya University	Turkey
Asst. Prof. Dr. Nihan Bilge KAMER	Trakya University	Turkey
Asst. Prof. Dr. Mehmet YABAŞ	Malatya Turgut Özal University	Turkey
Dr Veli PEKCAN	Trakya Agric. Research Institute	Turkey

CONTENTS

WELCOME NOTES.....	3
ORGANIZING COMMITTEE.....	4
SCIENTIFIC COMMITTEE.....	5
CONTENTS.....	5
ENZYMES-ASSISTED GREEN SOLVENTS EXTRACTION OF POLYPHENOLS FROM CHOKEBERRY POMACE	15
COMPARATIVE CHROMOSOMAL ANALYSIS OF TWO SPECIES THREATENED WITH EXTINCTION: THE BARBARY SHEEP AMMOTRAGUS LERVIA AND THE LEPTOCEROS GAZELLE GAZELLA LEPTOCEROS.....	16
ECOLOGICAL ADAPTATION AND PHYSIOLOGICAL RESPONSES OF TWO ECOTYPES OF CAROB (CERATONIA SILIQUA) TO WATER STRESS	17
SUBSEQUENT EFFECT OF ANAEROBIC DIGESTATE ON SOIL PROPERTIES	18
ESTIMATING CARBON SEQUESTRATION POTENTIAL OF TWO AGROFORESTRY PRACTICES IN HUNGARY	19
SPACEBORNE FOREST MONITORING	20
THE ROLE OF PROBIOTICS IN PREVENTION OF FOOD ALLERGY	21
PHOTOSYNTHETIC PIGMENTS IN PRIMULA VERIS LEAVES FROM DIFFERENT REGIONS OF ALBANIA AND KOSOVO	22
STUDY OF AUTOANTIBODIES IN PRIMARY BILIARY CHOLANGITIS (CBP) IN THE ANNABA REGION: CHARACTERISTICS, PREVALENCE AND DIAGNOSTIC ROLE OF AUTOANTIBODIES ASSOCIATED WITH CBP.	23
DIFFERENTIAL DROUGHT TOLERANCE MECHANISMS IN CHICKPEA GENOTYPES: INTEGRATING PHYSIOLOGICAL AND BIOCHEMICAL RESPONSES	24
ANTIFUNGAL PROPERTIES OF ALGERIAN HONEY: A NATURAL SOLUTION TO COMBAT FOODBORNE FUNGI	25
SCREENING OF E. COLI AND B. SUBTILIS CELLS FOR ANTIBIOTIC AND HEAVY METAL RESISTANCES BY PAPER DISC-AGAR DIFFUSION ASSAY	26
STUDY OF THE COMPARATIVE TOXICITY OF SINAPIS ARVENSIS AND EUCALYPTUS GLOBULUS ON AN APHID PEST AND ITS NATURAL ENEMY.....	27
CRUCIAN CARP AND BARBEL CATCH ANALYSIS IN OHRID LAKE	28
BEE VENOM: A DOUBLE EDGE IN THE REGULATION OF INFLAMMATION.....	29
A PRELIMINARY STUDY OF YELLOW PIGMENTS USED IN THE FRESCOES OF ALBANIAN POST-BYZANTINE PAINTERS JANI AND HIS SON VASILI FROM THE XVIII CENTURY; COMPOSITIONAL STUDY WITH X-RAY FLUORESCENCE AND RAMAN SPECTROSCOPY.....	30
EVALUATION OF ORANGE PEEL EXTRACT ON HUMAN NEUTROPHILS PROPERTIES: VIABILITY, ADHESION, AND ROS PRODUCTION	31
THE INFLUENCE OF CHEMICAL MUTAGENS ON THE PHOTOSYNTHETIC PIGMENTS OF THE TULIP PLANT	32
ASSESSMENT OF THE ANTIOXIDANT ACTIVITY OF THE MEDICINAL PLANT ARNICA MONTANA L. AFTER APPLICATION OF THE ELICITOR SALICYLIC ACID.....	33

GROWTH ACCELERATION AND ANTIOXIDANT POTENTIAL OF MICROPROPAGATED ARNICA MONTANA L. PLANTS USING BIOTIC ELICITOR YEAST EXTRACT	34
CONTENT OF ANTIBACTERIALS IN HOME PHARMACIES IN PRIMARY HEALTH CARE IN NIKŠIĆ, MONTENEGRO.....	35
ANTIBACTERIAL PRESCRIBING IN PRIMARY HEALTH CARE IN NIKŠIĆ, MONTENEGRO	36
PRELIMINARY STUDIES ON THE BENEFITS OF THE SEEDS OF SOME SPECIES OF THE GENUS AMARANTHUS L.	37
ANALYSIS OF THE IMPACT OF AGRICULTURAL PRACTICES ON SOIL BIODIVERSITY (EARTHWORM POPULATIONS AND ORGANIC MATTER)	38
SEQUESTRATION OF ORGANIC CARBON IN WETLAND SOILS AND INFLUENCE OF MICROBIAL RESPIRATION, C/N AND C/S RATIO, PH, EC AND BULK DENSITY ON THE WESTERN COASTAL LOWLANDS OF ALBANIA.....	39
HISTOLOGICAL STUDY AND LC-MS/MS ANALYSIS OF A MEDICINAL PLANT (PALLENIS SP.) FROM THE SEMI-ARID REGION OF TEBESSA, ALGERIA	40
PLANT DIVERSITY IN SEMI-ARID STEPPE REGIONS: A CASE STUDY OF THE TEBESSA AREA IN EASTERN ALGERIA.....	41
POSSIBILITIES OF VALORIZING SOME RARE VARIETIES OF DATES FROM SOUTHERN ALGERIA	42
EVALUATING DRINKING WATER QUALITY FOR LIVESTOCK IN AIN NAGA: IMPLICATIONS FOR FARM MANAGEMENT AND ANIMAL HEALTH.....	43
UNSATURATED FATTY ACID COMPOSITION IN THE MEAT OF ABERDEEN ANGUS, HEREFORD, AND LIMOUSIN BULLS.....	44
CHANGES OF ZOOPLANKTON AND ZOOBENTHOS BIOMASS IN PONDS STOCKED WITH GRASS CARP	45
IN SILICO STUDY OF CHEMICAL COMPOUNDS OF PROPOLIS AS INHIBITORS OF ALZHEIMER DISEASE.....	46
CHEMICAL CHARACTERIZATION AND BIOLOGICAL VALORIZATION OF THE EXTRACTS OF NATURAL SUBSTANCE FROM ALGERIA AND APPLICATION IN THE PARAPHARMACEUTICAL FIELD.....	47
CURRENT STATUS OF EDİRNE PASTURE AREAS, IMPROVEMENT WORKS, PROBLEMS AND SOLUTION SUGGESTIONS	48
SPATIAL – TEMPORAL VARIATIONS OF NA, MG, K, CA IN SEDIMENTS OF FELENT STREAM BASIN (KÜTAHYA, TÜRKIYE).....	49
MULTI – STATISTICAL EVALUATION OF MACRO ELEMENTS IN SURFACE SEDIMENTS OF FELENT STREAM (SAKARYA RIVER BASIN)	50
THE ROLE OF INNOVATIVE TECHNOLOGIES IN PREGNANCY MONITORING: EFFECTIVENESS OF ARTIFICIAL INTELLIGENCE AND REMOTE MONITORING SYSTEMS	51
REVOLUTION IN GYNECOLOGICAL CANCERS WITH ARTIFICIAL INTELLIGENCE: FROM DIAGNOSIS TO TREATMENT, FROM MANAGEMENT TO THE FUTURE.....	52
THE SHADOW OF COVID-19 ON URINARY TRACT INFECTIONS IN PREGNANCY: RISKS AND HEALTH IMPLICATIONS AFTER THE PANDEMIC	53

ENSURING DRUG QUALITY: QUALITY CONTROL IN NANODELIVERY SYSTEMS UTILIZING LIPOSOMES, NANOEMULSIONS, AND EXOSOMES.....	55
NANOSTRATEGIES AGAINST ANTIBIOTIC-RESISTANT URINARY TRACT INFECTIONS.....	56
ANALYSIS OF POLYMORPHISM INFORMATION PARAMETERS OF GENETIC DIVERSITY BASED ON ISSR MARKERS	57
VALORIZATION OF DATE PALM (PHOENIX DACTYLIFERA) FRUIT WASTE AND ITS ANTIMICROBIAL APPLICATION	59
ESTIMATION OF ALTERED RED BLOOD CELL AGGREGATION IN PATIENTS WITH CHRONIC LYMPHOCYTIC LEUKEMIA USING IMAGE FLOW ANALYSIS: THE IMPACT OF TARGETED THERAPIES.....	60
VULNERABILITY OF TUNISIAN OASES AGRICULTURE TO CHANGES IN PRODUCTION FACTORS: IMPACT OF CLIMATE CHANGE AND WATER SCARCITY. 61	
THE IMPACT OF DIFFERENT ROASTING PROFILES ON DEHYDRATION BEFORE FIRST CRACK.....	62
COMPARISON OF THE ANTIMICROBIAL EFFECTS OF INFUSION, DECOCTION AND MACERATION OF AQUEOUS EXTRACTS OF DOUM PALM SEEDS (HYPHAENE THEBAICA)	63
CORRELATION BETWEEN BLOOD GLUCOSE AND GLYCATED HEMOGLOBIN LEVELS IN DIABETIC PATIENTS WITH GENETIC HEMOGLOBIN VARIANTS.....	64
EXPLORING THE GENETIC POTENTIAL OF RICE ACCESSIONS FOR SALINITY TOLERANCE AT SEEDLING STAGE USING MORPH-MOLECULAR MARKERS.....	65
BI-ALLELIC VARIANTS IN BRF2 ARE ASSOCIATED WITH PERINATAL DEATH AND CRANIOFACIAL ANOMALIES.....	66
ESTROUS CYCLE LENGTH IN THE ALGERIAN ARBIA GOAT: EXFOLIATIVE VAGINAL CYTOLOGY AND SERUM PROGESTERONE LEVELS.....	67
PREVALENCE, TREATMENT, AND ECONOMIC IMPACT OF COLIBACILLOSIS IN BROILER CHICKENS IN THREE WILAYAS OF CENTRAL ALGERIA	68
SEARCH FOR A POSSIBLE ASSOCIATION BETWEEN THE RS11200638 POLYMORPHISM OF THE HTRA1 GENE AND THE DEVELOPMENT OF AGE-RELATED MACULAR DEGENERATION IN A SAMPLE OF PATIENTS FROM THE WILAYA OF ORAN	69
NATURAL CINNAMIC ALDEHYDE ISOLATION FROM CINNAMONUM ZEYLANICUM: IN SILICO STUDIES (MOLECULAR DOCKING, DFT AND ADME).	70
IN VITRO AND IN SILICO STUDIES OF ANTIFUNGAL ACTIVITY OF SYZYGIUM AROMATICUM ESSENTIAL OIL AND ITS MAIN CONSTITUENT ‘EUGENOL’ AGAINST A CITRUS FUNGAL STRAIN, FUSARIUM PROLIFERATUM.....	71
ESTIMATION OF RED BLOOD CELL AGGREGATION IN PREECLAMPSIA USING MICROFLUIDIC FLOW ANALYSIS.....	72
SYNTHESIS, CHARACTERIZATION AND ANTIOXIDANT ACTIVITY OF HISTAMINE-DERIVED LIGANDS	73
INNOVATIVE SYNTHESIS OF SCHIFF BASE DERIVATIVE FOR EFFECTIVE REMOVAL OF HEAVY METALS FROM INDUSTRIAL WASTEWATER	74

GREEN SYNTHESIS OF ZINC OXIDE NANOPARTICLES: AN ECO-FRIENDLY PATHWAY TO ANTIOXIDANT AND ANTIMICROBIAL SOLUTIONS.....	75
DEVELOPMENT OF DATA BASE FOR CLINICAL AND RHEOLOGICAL INDICES FOR WOMEN WITH PREECLAMPSIA - PILOT STUDY	76
DEVELOPMENT OF IMAGE FLOW ANALYSIS IN THE EVALUATION OF RBC AGGREGATION IN WOMEN WITH PREECLAMPSIA	77
DEVELOPMENT OF A PCR ASSAY FOR RAPID IDENTIFICATION OF CLINICAL ENTEROCOCCUS FAECALIS	78
ANTIOXIDANT ACTIVITY OF EPHEDRA ALATA EXTRACT AND BIOSYNTHESIS OF CEO2 NANOPARTICLES: ASSESSMENT MIC AND MBC AGAINST BACTERIAL SPECIES	79
EXAMINATION OF THE HEALTH SAFETY OF OAK SEEDS ORIGINATING FROM SEED SOURCES IN CENTRAL SERBIA	80
THE ANTIMICROBIAL POWER OF CADMIUM NANOPARTICLES OBTAINED FROM COLPOMENIA PEREGRINA ALGAE EXTRACT.	81
INVESTIGATION OF REPRODUCTION AND PRODUCTION TRAITS IN PURE AND CROSSBRED BALADI RABBITS	82
ENHANCING POTATO RESISTANCE TO LATE-BLIGHT THROUGH SERENDIPITA INDICA COLONIZATION	83
THE PREDICTIVE ROLE OF NEUTROPHIL-TO-LYMPHOCYTE RATIO FOR CARDIOVASCULAR MORTALITY IN HEMODIALYSIS PATIENTS.....	84
PHENOLIC COMPOSITION, ANTIOXIDANT ACTIVITIES AND INHIBITORY EFFECT ON A-AMYLASE OF IMMATURE FABA BEAN (VICIA FABA V. MAJOR) HUSK EXTRACT AND ITS FRACTIONS	85
CHEMICAL CONSTITUENTS OF ESSENTIAL OIL OF ORMENIS AFRICANA AERIAL PARTS FROM ALGERIA	86
TRADITIONAL USES AND PHYTOCHEMICAL COMPOSITION OF ESSENTIAL OIL SISYMBRIUM IRIO FROM ALGERIA.....	87
ANTHROPOMETRIC INDICES, OVERWEIGHT, OBESITY AND THEIR ASSOCIATION WITH LIFESTYLE AND UNHEALTHY BEHAVIOUR AMONG ADOLESCENTS	88
ASSESSMENT OF NUTRITIONAL AND CARDIO-METABOLIC STATUS IN TYPE 2 DIABETIC PATIENTS IN THE TLEMEN REGION.....	89
NUTRITIONAL PROFILE AND CARDIOMETABOLIC RISK IN HEMODIALYSIS PATIENTS AT TLEMEN UNIVERSITY HOSPITAL.....	90
EVALUATION OF THE IN VITRO ANTIOXIDANT, ANTIBACTERIAL AND ANTIFUNGAL ACTIVITIES OF SATUREJA BATTANDIERI BRIQ. FROM ALGERIA.....	91
ANTIMICROBIAL AND ANTIOXIDANT PROPERTIES OF ESSENTIAL OIL AND METHANOL EXTRACT FROM TEUCRIUM POLIUM L.	92
CHEMICAL COMPOSITION OF PISTACIA LENTISCUS ESSENTIAL OIL FROM EASTERN ALGERIA	93
OBESITY IN ALGERIAN ADOLESCENTS AS DETERMINED BY BODY MASS INDEX AND BODY FAT MASS RATE	94
IMPACT OF TONIFERTAL 4H SUPPLEMENTATION ON ENHANCING RABBIT FERTILITY	95

SYNERGISTIC EFFECTS OF TWO ESSENTIAL OILS OF ROSMARINUS OFFICINALIS AND CARTHAMUS CAERULEUS AGAINST PATHOGENIC MICROORGANISMS	96
EPIDEMIOLOGICAL AND BIOCHEMICAL PROFILE OF DYSLIPIDEMIA DURING PREGNANCY IN DIABETIC WOMEN FROM WEST ALGERIA.....	97
TRICHODERMA SPP. INDUCE THE SYSTEMIC DEFENSE RESPONSE IN TOMATO AGAINST SCLEROTINIA SCLEROTIURUM.....	98
PRIMA SCALA MEDI 2020 PROJECT: ANALYSIS OF GENETIC AND PHENOTYPIC DIVERSITY IN LOCAL CHICKEN POPULATIONS IN ALGERIA	99
ROLE OF STJC, FIMH AND STHE FIMBRIAL GENES IN BIOFILM FORMATION OF SALMONELLA TYPHIMURIUM ON POLYSTYRENE AND STAINLESS-STEEL SURFACES.....	100
AI-ASSISTED EARLY DETECTION OF PLANT DISEASES AND PESTS AND REDUCTION OF PESTICIDE USE WITH AGRICULTURAL UNMANNED GROUND VEHICLES	101
EVALUATING PLANTAGO LANCEOLATA EXTRACT FOR INHIBITION OF BACILLUS CEREUS BIOFILM.....	102
MYRTUS COMMUNIS FRUIT EXTRACTS ANTIBACTERIAL AND ANTIBIOFILM ACTIVITIES ON STAPHYLOCOCCUS AUREUS	103
EVALUATING BIOFILM FORMATION BY SALMONELLA TYPHIMURIUM AND ITS CSGD, RFAG, RMBA, AND STJC MUTANTS IN SIMULATED GASTROINTESTINAL ENVIRONMENTS.....	104
STRUCTURE AND MATRIX OF BIOFILMS: A COMPREHENSIVE REVIEW	105
FATTY ACID PROFILE OF MEATS AND THEIR IMPACTS ON HUMAN HEALTH	106
COMPARATIVE ANALYSIS OF TRADITIONAL AND GREEN EXTRACTION TECHNOLOGIES FOR PHENOLIC COMPOUNDS FROM OLIVE FLESH AND LEAVES	107
BIOREMEDIATION OF CONTAMINATED SOILS	108
MICROPOLLUTANTS AND THEIR EFFECTS ON ENVIRONMENTS	109
FORAGE YIELDS OF SOME CONFECTIONARY SUNFLOWER VARIETIES GROWN AT DIFFERENT DENSITIES.....	110
KEY BACTERIAL INFECTIONS IMPACTING APRICOTS AND HOW TO MANAGE THEM	111
INVESTIGATION OF THE EFFECT OF D398S MUTATION ON THE KINETIC PARAMETERS AND THERMAL STABILITY OF GLUCOSE ISOMERASE FROM Anoxybacillus gonensis G2T.....	112
IN VITRO ANTIOXIDANT AND SUNSCREEN ACTIVITY OF ACETONE AND METHANOL EXTRACTS OF MAIZE LEAVES AND MAIZE TASSEL.....	113
THE IMPORTANCE OF GENETIC TESTS USED IN COLORECTAL CANCER DIAGNOSIS	114
MECHANISM OF BAX/BCL-2 ASSOCIATED MULTIDRUG RESISTANCE IN CANCER	115
APPLICATIONS OF ELECTRO-PEROXONE PROCESS IN THE REMOVAL OF PHARMACEUTICALS.....	116
EFFECT OF ompC GENE ON BIOFILM FORMATION UNDER SALT STRESS IN SALMONELLA TYPHIMURIUM STRAIN 14028	117

ANTIMICROBIAL POTENTIAL OF BACTERIA FROM THE MICROALGAE PHYCOSPHERE.....	118
STUDIES ON PHOTOCATALYTIC DEGRADATION OF ANIONIC AND CATIONIC DYES VIA ANTIMONY TRIOXIDE.....	119
THE ROLE OF POLYMERIC NANOMATERIALS IN DRUG DESIGN.....	120
MULTI-OMICS DATA MINING IN PLANT SCIENCE: FAR1 GENE FAMILY IN P. VULGARIS.....	121
THE ROLE OF GLUTAMATE RECEPTOR-MEDIATED NITRIC OXIDE PRODUCTION IN MITOCHONDRIAL STRESS RESPONSE IN <i>ARABIDOPSIS THALIANA</i>	122
OMICS-ASSISTED CHARACTERIZATION AND EXPRESSION ANALYSIS OF THE ALFIN-LIKE GENES IN PHASEOLUS VULGARIS L	123
REVEALING THE FUNCTIONALLY IMPORTANT RESIDUES FROM THE THREE DIMENSIONAL STRUCTURE DATA OF PROTEINS	124
THE EFFECT OF E3 LIGASE ATPUB18 IN NO SIGNALIZATION ON ABA-INDUCED STOMATAL CLOSURE.....	125
IN SILICO ANALYSIS OF ABIOTIC STRESS RESILIENCE: UNVEILING KEY PLANT PLATZ GENES IN <i>PHASEOLUS VULGARIS L</i>.....	126
RISK FACTORS FOR THE EFFICIENCY OF ARTIFICIAL INSEMINATION IN DAIRY COWS.....	127
STUDY OF THE RELATIONSHIP BETWEEN THE RESUMPTION OF POSTPARTUM OVARIAN CYCLICITY AND CERTAIN NUTRITIONAL CRITERIA IN DAIRY COWS..	128
IN SILICO INVESTIGATION INVOLVING GOLD AND SILVER NANOPARTICLES WITH B-AESCIN AGAINST COVID-19 VARIANTS	130
EFFECTS OF INFESTATION BY THE PARASITE VARROA DESTRUCTOR ON THE EMERGENCE WEIGHT OF WORKERS, AND LIFESPAN DIFFERENCES BETWEEN SENSITIVE AND RESISTANT HONEY BEE (<i>APIS MELLIFERA</i>) COLONIES	131
OCCUPATIONAL EXPOSURE TO CHEMICAL AND RADIOLOGICAL HAZARDS IN HEALTHCARE WORKERS IN PUBLIC HEALTH FACILITIES, TLEMEN, ALGERIA	132
ASSESSMENT OF THE LEVEL OF CARBON MONOXIDE IN EXHALED AIR AMONG WORKERS AT GASOLINE STATIONS IN ALGERIA.	133
RESVERATROL LOADED MICELLES WITH EFFECT ON EXPLORATORY BEHAVIOR AND BRAIN MONOAMINES IN RATS WITH SCOPOLAMINE INDUCED DEMENTIA..	134
PLURONIC P123 AND PLURONIC F127 COPOLYMER MICELLES LOADED WITH RESVERATROL PROTECT AGAINST APOPTOSIS IN AN IN VIVO EXPERIMENTAL MODEL OF DEMENTIA.	135
CORIANDRUM SATIVUM IN WINE AROMATIZATION IN BULGARIA.....	136
THE EFEKT OF CULTIVATION TECHNOLOGIES ON THE GRAIN YIELD AND QUALITY OF DURUM WINTER WHEAT	137
EVALUATING QUALITY STANDARDS IN DURUM WHEAT AND SEMOLINA PRODUCTION: A CASE STUDY OF ZIBAN MILLS	138
NASAL TREATMENT TARGETING SARS-COV-2 VARIANTS IN THE AGE OF VACCINES	139

APPLICATION OF SACCHAROMYCES CEREVISIAE 31 AND METSCHNIKOWIA PULCHERRIMA 62, ISOLATED FROM ALBANIAN VINEYARDS, AS NEW STARTERS IN THE PRODUCTION OF ALE STYLE BEER.....	140
EXTRACTION AND EVALUATION OF BIOACTIVE COMPOUNDS IN FRESH AND DRIED OLIVE LEAVES	141
BAT DIVERSITY IN THE ALGERIAN BIBANS, A LIMESTONE KARST MASSIF	142
PRODUCTION OF POLYHYDROXYALKANOATES AND EXTRACELLULAR PRODUCTS FROM PSEUDOMONAS PUTIDA	143
MOLECULAR CHARACTERISATION OF SPECIES AND GENOTYPE OF HISTOMONAS MELEAGRIDIS IN CHICKENS FROM TUNISIA.....	144
STUDY OF THE ANTIMICROBIAL ACTIVITY OF HEXANE AND ETHYL ACETATE EXTRACTS OF ANABASIS OROPEDIORUM MAIRE.....	145
THE EFFECT OF PLASMA ACTIVATED WATER ON THE MICROBIAL DECONTAMINATION AND PRESERVATION OF STRAWBERRIES.....	146
ASSESSMENT OF GROUNDWATER QUALITY FOR DRINKING AND IRRIGATION IN THE BOUHAMA AREA, ALGERIA.....	147
SCREENING LAMNACAE ACIDA, FICUS SYCOMORUS AND BRIDELIA FERUGINEA FOR ACTIVITY AGAINST TYPE-2 DIABETES.....	148
COMPARATIVE EFFECT OF TWO BIOSTIMULANTS ON THE PHYTOCHEMICAL EXPRESSION OF A STRATEGIC CEREAL CROP.....	149
A LONGITUDINAL ANALYSIS OF THE IMPACT OF PHYSICAL ACTIVITY AND SEDENTARY BEHAVIOURS ON GESTATIONAL WEIGHT GAIN: WHAT ARE THE REASONS OF NON-PRACTICE ?.....	150
SCREENING OF PROMISING LINES USING GENERATION MEAN ANALYSIS FOR HIGH GRAIN YIELD AND YIELD RELATED TRAITS.....	151
OVERVIEW OF PLANT BASED NANO MEDICINES	152
GENETIC TRANSFORMATION OF WHEAT FOR ABIOTIC STRESS TOLERANCE	153
ETHNOVETERINARY PRACTICES USED IN THE POTHOHAR PLATEAU (DISTRICT CHAKWAL), PAKISTAN FOR TREATMENT OF ANIMALS.....	154
AEROPALYNOLOGICAL STUDY AND POLLEN DIVERSITY IN THE ATMOSPHERE OF BATNA (NORTHEAST ALGERIA): ANNUAL ANALYSIS USING A HIRST-TYPE VOLUMETRIC SAMPLER	155
MEDICINAL PLANTS AND ACNE TREATMENT: AN ETHNOBOTANICAL STUDY AMONG YOUNG ADULTS ACROSS SIX ALGERIAN CITIES	156
EXTRACTION OF MASTIC OIL (DROU).....	157
BIOPRESERVATION TRIALS OF THE TRADITIONAL ADGHESS CHEESE USING LACTIC ACID BACTERIA	158
FRESH CHEESES MADE IN THE EASTERN ALGERIAN REGION.....	159
ETHNOBOTANICAL SURVEYS ON INFLUENZA TREATMENT METHODS IN THE COMMUNES OF M'SILA, OULED DERRADJ, BERHOUM AND MAGRA OF THE WILLAYA OF M'SILA (ALGERIA)	160
FLORISTIC DIVERSITY OF M'SILA: INVENTORY, CHOROLOGY, ECOLOGY	161
CURRENT APPROACH TO THE CHILD WITH FEVER.....	162

UNLOCKING THE POTENTIAL OF AVOCADO PEELS: A PATH TO SUSTAINABLE NUTRACEUTICALS	163
THE INHIBITOR EFFECT OF MAGNESIUM SULFATE ON THE ACTIVITY OF GLUCOSE-6-PHOSPHATE DEHYDROGENASE	164
QUALITY CONTROL PREPARATION FOR SPECTROPHOTOMETRIC METHEMOGLOBIN DETERMINATION	165
DETERMINATION OF ALLERGIC TREE POLLEN GRAINS SPREADING IN SELÇUK UNIVERSITY ALAEDDIN KEYKUBAT CAMPUS.....	166
DEVELOPMENT AND VALIDATION OF A NEW HPLC-UV METHOD FOR THE DETERMINATION OF GOSSYPOL IN COMMERCIALY AVAILABLE COTTON OILS	167
FIRST DETECTION OF COLLETOTRICHUM CEREALE CAUSED ANTHRACNOSE IN TURFGRASS AREAS IN TÜRKIYE	168
MICRODOCHIUM SPP. CAUSING DISEASES IN TURFGRASS AREAS AND THEIR DAMAGES	169
THE CHARACTERIZATION OF LEA GENE FAMILY IN P. VULGARIS USING MULTI-OMICS APPROACH.....	170
CURRENT EVIDENCE IN THE MANAGEMENT OF NEONATAL SEPSIS.....	171
CURRENT APPROACH TO THE CHILD WITH FEVER.....	172
BIOMASS LIPID PROFILES OF SPIRULINA MICROALGAE AS FOOD SUPPLEMENT	173
GAMMA IRRADIATED MICROENCAPSULATED BLACK MULBERRY POWDER CONTAINING APIGENIN AND MORUSIN.....	174
PRODUCTION OF BETA GLUCAN SUPPLEMENTED MICROENCAPSULATED APPLE PHLORIDZIN (PHLDZ) POWDER AND APPLE PHLDZ BASED GEL CANDY	175
FLORISTIC BIODIVERSITY STUDY OF THE NATURAL BIOTOPES OF THE DESERT LOCUST (SCHISTOCERCA GREGARIA FORSSKÅL) IN THE TADEMAÏT PLATEAU (ALGERIAN SAHARA).....	176
STUDY OF WATER TRANSFER IN SOIL. EFFECTS OF TEXTURE AND SALINITY.....	177
PRODUCTION OF POLYHYDROXYALKANOATES AND EXTRACELLULAR PRODUCTS FROM PSEUDOMONAS PUTIDA	178
PAST, PRESENT AND FUTURE OF VEGETABLE PRODUCTION IN TURKEY	179
CONTRIBUTION TO A CHARACTERIZATION OF THE POSTPARTUM PERIOD IN THE CAMEL (CAMELUS DROMEDARIUS).....	180
ULTRASOUND AND HORMONAL MONITORING OF OVARIAN ACTIVITY IN THE CAMEL (CAMELUS DROMEDARIUS) DURING THE POSTPARTUM PERIOD.....	181
EFFECT OF ADDING SOYBEAN OIL TO DIESEL FUEL ON ENGINE CHARACTERISTICS	182
THE ROLE OF CHATBOTS IN SUPPORT REQUEST SYSTEMS AND THE POTENTIAL OF CHATGPT	183
RESPONSE OF MAIZE BREEDING TO CLIMATE CHANGE	184
IMPACT OF TONIFERTAL 4H SUPPLEMENTATION ON ENHANCING RABBIT FERTILITY	185

STUDYING THE EFFECT OF AN AQUEOUS EXTRACT OF TEUCRIUM POLIUM L. ON MERCURY TOXICITY INDUCED ALTERATIONS IN LIPID PROFILES (LIPID FRACTIONS) IN LIVER TISSUE OF RATS.....	186
MERCURY-INDUCED ACUTE NEPHROTOXICITY IN RATS: TREATMENT WITH AQUEOUS EXTRACT OF PISTACIA ATLANTICA (DESF)	187
OXIDATIVE STRESS IN VICIA FABA L. SEEDLINGS UNDER DIFFERENT ABIOTIC STRESSES: SALINITY, WATER DEFICIT, AND HEAVY METAL STRESS	188
DETECTION OF MICROPLASTICS NEAR THE ESTUARY OF KAVAJA RIVER USING RAMAN SPECTROSCOPY	189
SEA URCHIN POPULATION OF TURKEY IN TERMS OF BIOACTIVE POTENTIALS ..	190
BIOLIC 2024 CONGRESS STUDENT ORGANIZING TEAM	191
OUR SPONSORS	192

EFFECT OF ADDING SOYBEAN OIL TO DIESEL FUEL ON ENGINE CHARACTERISTICS

*Dinçer Akal^{*1}, Erdal Tunçer², Yalçın Kaya³, Necmi Beşer⁴, Ayşegül Efendioğlu⁵, Mustafa Acar⁶*

¹Trakya University, Engineering Faculty, Mechanical Engineering Department, Edirne, Turkey

²Istanbul Health and Technology University Faculty of Engineering and Natural Sciences, Istanbul, Turkey

³Trakya University, Engineering Faculty, Genetics and Bioengineering Department, Edirne, Turkey

⁴Trakya University, Engineering Faculty, Genetics and Bioengineering Department, Edirne, Turkey

⁵Agricultural Research Institute, Agriculture Forest Ministry Samsun, Turkey

⁶Agricultural Research Institute, Agriculture Forest Ministry Samsun, Turkey

**e-mail: dincerakal@trakya.edu.tr*

ABSTRACT

Biodiesel fuels are seen as an important resource due to the environmental damage caused by exhaust emissions from the use of fossil fuels, the increase in global warming and the rise in oil prices. As an alternative, the use of biodiesel by blending certain percentages of biodiesel into diesel fuel is preferred due to both sustainability and some advantages. In this study, 10% soybean oil was added to the fuel used in a single-cylinder diesel engine and the changes in engine power, fuel consumption and exhaust emissions were experimentally investigated. According to the results of the study, it was observed that the engine power was almost the same with the addition of soybean oil to the diesel fuel, but there was an increase in exhaust emissions with some increase in fuel consumption. For this reason, it is clear that further experimental studies should be carried out by adding soybean oil with different characteristics and proportions to be used in diesel engines.

Key words: Energy, diesel engine, emission, biodiesel, sustainability

BIOLIC 2024 CONGRESS STUDENT ORGANIZING TEAM

NAME

1. Emrah Akpınar
2. Metin Burak Tatlıses
3. Deniz Kızılkaya
4. Mutlu Şen
5. Selinay Demir
6. Neslihan Yılmaz
7. Begüm Kurt

OUR SPONSORS

PLATINUM SPONSOR



TRAGEN RD CO Ltd

www.tragen.gen.tr

GOLDEN SPONSOR



Who wouldn't want
THE NYP120 MODEL SCREW PRESS,
capable of processing
1200 TONS OF OILSEED
in a single equipment?



Experience our splendid
SCREW PRESSING TECHNOLOGIES
&
EXPERTISE SINCE 1960
to fulfill your dreams.



Your Solution Partner

hum.com.tr

