

**Faculty of Technology and Technical Sciences - Veles
University "St. Kliment Ohridski" - Bitola, Republic of North Macedonia**



**2ND INTERNATIONAL SCIENTIFIC CONFERENCE
FOOD SCIENCE, NUTRITION, INNOVATIVE TECHNOLOGIES AND
SUSTAINABILITY**

BOOK OF ABSTRACTS

**29-30 September 2026
Veles, Republic of North Macedonia**

Faculty of Technology and Technical Sciences - Veles
University "St. Kliment Ohridski" - Bitola, Republic of North Macedonia



2nd International Scientific Conference
Food Science, Nutrition, Innovative Technologies and Sustainability

Book of Abstracts

29-30 September 2026
Veles, Republic of North Macedonia

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PROGRAM OF THE 2ND INTERNATIONAL SCIENTIFIC CONFERENCE IN THE FIELD OF FOOD SCIENCE, NUTRITION, INNOVATIVE TECHNOLOGIES AND SUSTAINABILITY

Location: Faculty of Technology and Technical Sciences - Veles, University "St. Kliment Ohridski" - Bitola Dimitar Vlahov no. 57, 1400 Veles, North Macedonia

Direction: <https://maps.app.goo.gl/2HKzpi1VmZAypuwj9>

Conference website: <https://tffv.uklo.edu.mk/conferences/?lang=en>

Date: 29 and 30 September 2026

The conference will follow a hybrid theme, allowing participation both in person at the Faculty of Technology and Technical Sciences, Veles and online on the Google Meet platform:

<https://meet.google.com/sko-uata-pcv>

DAY 1 — 29 September 2026

Registration 9:30 AM – 10:00 AM

Opening Ceremony 10:00 AM - 10:30 AM

Welcome addresses by the organizers and representatives of the University.

10:00 Welcome Address by the **Dean** of the Faculty of Technology and Technical Sciences – Veles **Assoc. Prof. d-r Vezirka Jankuloska**

10:05 Welcome Address by the **Vice Dean** for Sciences and International Cooperation of the Faculty of Technology and Technical Sciences – Veles **Prof. d-r Vesna Knights**

10:10 Welcome Address by the **Rector** of “St. Kliment Ohridski” University – Bitola **Prof. d-r Igor Nedelkovski**

10:15 Welcome Address by **Mr. Marko Kolev, Mayor** of the Municipality of Veles

10:30 Ceremonial Presentation of Certificates of Appreciation to Institutions and Individuals

10:30–10:50 | Keynote Lecture

Speaker: **Prof. Dr. Tamara Jurina**, Faculty of Food Technology and Biotechnology, University of Zagreb.

Topic: Valorization of spent coffee grounds: utilizing ultrasound-assisted extraction for sustainable resource recovery.

Authors: Rita Barišić, Maja Benković, Jasenka Gajdoš Kljusurić, Vesna Knights, Anka Trajkovska Petkoska, Davor Valinger, Ana Jurinjak Tušek, **Tamara Jurina**

10:50–11:10 | Presentation of the Scientific Research Project

“Mathematical Models in Machine Learning for Smart Agriculture and Higher Value-Added Food”

Funded by the Ministry of Education and Science of the Republic of North Macedonia.

Project Leader: Prof. Dr. Vesna Knights

11:10–11:30 | Presentation of the Nutritionists’ Association “Nutri Pro”

11:35 Group Photo

11:30–12:00 | Cocktail / Networking

DAY 1 — 29 September 2026

Physical presence Programme

12:00–13:40 | Scientific Session I

Moderators: Valentina Velkovski, Tatjana Kalevska, Nevena Gruevska

12:00–12:05

EFFECT OF SKIM MILK POWDER ADDITION ON THE TEXTURAL PROPERTIES OF PROBIOTIC YOGURT

Authors: Arbër Hyseni, Tatjana Kalevska, Daniela Nikolovska Nedelkoska, Vladimir Kitanovski, Indrit Loshi, Vlora Hyseni

12:05–12:10

NUTRITIONAL CHARACTERIZATION OF BLACK CURRANT COMPOTE (*RIBES NIGRUM*) ENRICHED WITH HONEY

Authors: Neshe Salih, Vezirka Jankuloska

12:10–12:15

DATA ANALYSIS OF MINERAL COMPOSITION IN HERBAL-ENRICHED HONEY

Authors: Berat Durmishi, Vesna Knights, Vezirka Jankuloska, Gorica Pavlovska, Valentina Velkovski

12:15-12:20

THE IMPACT OF ARTIFICIAL INTELLIGENCE ON EATING HABITS AND HEALTH-RELATED DECISION-MAKING IN 2026

Authors: Ivana Angelova

12:20-12:25

PREDICTORS OF CLINICAL IMPROVEMENT IN PATIENTS WITH HASHIMOTO AND THYROIDITIS FOLLOWING A MODIFIED ANTI-INFLAMMATORY DIET

Authors: Besim Sermedzaj, Zora Uzunoska, Vesna Knights

12:25-12:30

MICROBIOLOGICAL SAFETY OF DIETARY MEAT PRODUCTS INTENDED FOR CHILDREN'S NUTRITION

Authors: Nadica Bajraktarova, Dimitar Nakov, Aco Kuzelov, Zoran Stefanovic, Marija Bugjevac

12:30-12:35

THE DEVELOPMENT OF FERMENTED SAUSAGE PRODUCTION: FROM TRADITION TO MODERN BIOTECHNOLOGY

Authors: Nevena Gruevska, Tatjana Kalevska, Tanja Stojanovska

12:35-12:40

FROM SPECTROPHOTOMETRIC ASSAYS TO ELECTROCHEMICAL ANALYSIS: CURRENT APPROACHES FOR ASSESSING ANTIOXIDANT ACTIVITY IN FOOD EXTRACTS

Authors: Milena Jankulovska Petkovska, Mirjana S. Jankulovska, Maja Sencheva Petrevska, Vesna Dimova, Biljana Petrovska, Natasa Petrovska

12:40-12:45

MICROGREEN CULTIVATION AS A NEW AND SUSTAINABLE APPROACH TO FOOD PRODUCTION

Authors: Viktorija Stamatovska

12:45-12:50

INTEGRATED ICP-OES AND LC-ESI-MS/MS CHARACTERIZATION OF KIWIFRUIT PEEL: MINERALS, PHYTOCHEMICALS, AND SAFETY FOR SUSTAINABLE VALORIZATION

Authors: Sasa Savić, Sanja Petrović, Jelena Zvezdanović, Dragan Cvetković

12:50-12:55

FENUGREEK IN PREDIABETES: CLINICAL EVIDENCE, FORMULATION VARIABILITY, AND THE NEED FOR STANDARDIZATION

Authors: Josif Kachurov, Zorica Kachurov

12:55–13:00

EVALUATION OF CORN SILK FOR POTENTIAL APPLICATIONS IN DIETARY SUPPLEMENTS

Authors: Sanja Petrović, Sasa Savić, Jelena Zvezdanović, Dragan Cvetković, Aleksandar Lazarević

13:00–13:05

PHYSICOCHEMICAL CHANGES DURING THE RIPENING OF TRADITIONAL GOAT CHEESE

Authors: Hava Miftari, Daniela Nikolovska Nedelkoska, Vezirka Jankuloska, Tatjana Kalevska, Tatjana Blazevska, Ismail Ferati, Rejhana Luma

13:05–13:10

FUNCTIONAL NANOMATERIALS FOR SMART AND SUSTAINABLE FOOD-CONTACT MATERIALS: FROM ANTIMICROBIAL SURFACES TO INTELLIGENT PACKAGING – A LITERATURE REVIEW

Authors: Milena Jankulovska Petkovska, Mirjana S. Jankulovska, Maja Sencheva Petrevska, Vesna Dimova, Biljana Petrovska, Natasa Petrovska

13:10–13:15

ST. JOHN'S WORT INFUSIONS FROM SERBIA ORIGIN. AN UHPLC-DAD-ESI-MS/MS STUDY

Authors: Jelena Zvezdanović, Aleksandar Lazarević, Sanja Petrovic, Dragan Cvetkovic

13:10–13:15

OXIDATIVE STABILITY AND FATTY ACID PROFILE OF COLD-PRESSED OLIVE OIL DURING MICROWAVE TREATMENT

Authors: Vezirka Jankuloska, Boshko Petrovski, Gorica Pavlovska, Daniela Nikolovska Nedelkoska

13:15–13:20

FROM ELECTRONIC HEALTH RECORDS TO PRECISION SPORTS NUTRITION: BUILDING A NATIONAL DIGITAL ATHLETE PASSPORT

Authors: Sanja Sazdovska, Vlatko Nedelkovski, Erion Hamiti, Ljubica Nikolova

13:20–13:25

MATHEMATICAL MODELS FOR THE ANALYSIS AND ASSESSMENT OF THE NUTRITIONAL QUALITY OF SELECTED VEGETABLE CROPS: A LITERATURE REVIEW

Authors: Vesna Knights et al.,

13:25–13:30

ASSOCIATION OF SNACKING FREQUENCY AND FRIED FOOD CONSUMPTION WITH NUTRITIONAL STATUS AMONG EARLY ADOLESCENTS

Authors: Jasminka Bojoska, Vezirka Jankuloska, Daniela Nikolovska Nedelkoska, Tatjana Kalevska, Eleonora Delinikolova

13:30–13:35

NUTRITIONAL, RHEOLOGICAL, AND SENSORY PROPERTIES OF WHEAT BREAD ENRICHED WITH BEAN AND CHICKPEA FLOURS

Authors: Kaltrina Sejdiu, Gafur Xhabiri, Xhezair Idrizi, Namik Durmishi, Hava Miftari
Rejhana Luma, Durim Alija

13:35–13:40

IMPACT OF PASTEURIZATION AND FREEZE-DRYING ON THE SENSORY PROPERTIES OF CHOKEBERRY (ARONIA MELANOCARPA) JUICE

Authors: Rejhana Luma, Namik Durmishi, Xhezair Idrizi, Ismail Ferati, Gafur Xhabiri, Hava Miftari, Durim Alija

13:40–13:45

ORANGE PEEL AS A SOURCE OF SACCHAROMYCES CEREVISIAE: EVALUATION OF FERMENTATIVE POTENTIAL AND ETHANOL TOLERANCE

Authors: Hava Miftari, Durim Alija, Rejhana Luma

13:45–13:50

APPLICATION OF MATHEMATICAL MODELS FOR THE NUTRITIONAL QUALITY OF SELECTED LEGUMES, CEREALS, AND OILSEEDS: A LITERATURE REVIEW

Authors: Vesna Knights et al.,

13:50–13:55

ANTIOXIDANT CAPACITY OF BERRY POMACE EXTRACTS OBTAINED USING A DEEP EUTECTIC SOLVENT

Authors: Mersiha Suljkanović, Jasmin Suljagić, Amela Kusur, Edita Bjelić, Sedina Hodžić

13:35–13:40

EXPLORING THE POTENTIAL OF AGRI-FOOD WASTE AND MARINE BIOMASS AS A SOURCE OF BIOACTIVE COMPOUNDS

Authors: Mersiha Suljkanović, Edita Bjelić, Jasmin Suljagić, Sedina Hodžić, Amela Kusur, Aslihan Arslan Kartal

13:35–13:40

EFFECT OF STORAGE TIME ON VITAMIN C CONTENT IN COMMERCIAL FRUIT JUICES

Authors: Gorica Pavlovska, Katerina Temelkovska Ristevska, Vezirka Jankuloska, Vesna Knights, Gjurgjica Blazhevskaja

13:20–13:40 | Coffee Break / Networking

13:40–15:00 | Scientific Session II

Moderators: Sanja Sazdovska, Viktorija Stamatovska, Eleonora Delinikolova

13:40–13:50

PROXIMATE COMPOSITION AND DIETARY FIBER CONTENT OF PEACH (PRUNUS PERSICA) PEEL WASTE: POTENTIAL FOR FUNCTIONAL FOOD APPLICATIONS

Authors: Gresa Ahma, Vezirka Jankuloska

13:50–14:00

NUTRIGENOMICS AND NUTRIGENETICS IN OBESITY: LINKING MOLECULAR MECHANISMS, GENE–DIET INTERACTIONS AND PERSONALIZED NUTRITION

Author: Eleonora Delinikolova

14:00–14:10

MEDITERRANEAN DIET, FRUIT AND VEGETABLE CONSUMPTION, AND CARDIOVASCULAR HEALTH AMONG ADULTS IN KOSOVO

Authors: Nazmi Velija, Zora Uzunoska, Vesna Antoska Knights

14:10–14:20

DESCRIPTIVE ANALYSIS OF DIETARY HABITS AMONG PATIENTS WITH TYPE 2 DIABETES MELLITUS

Authors: Valbona Sallai Mazllami, Vesna Knights, Vezirka Jankuloska, Zora Uzunoska, Tatjana Blazhevaska, Valentina Velkovski, Kristina Jankuloska Gacoska

14:20–14:30

HIGH PRESSURE PROCESSING OF FRUIT AND VEGETABLE JUICES: A SYSTEMATIC REVIEW OF QUALITY AND SHELF LIFE

Authors: Kristina Jankuloska Gacoska, Vezirka Jankuloska, Tatjana Blazevska, Katerina Temelkovska Ristevska, Daniela Nikolovska Nedelkoska

14:30–14:40

ADVANCED LIPID SYSTEMS FOR FAT REPLACEMENT IN MEAT PRODUCTS: PRE-EMULSIFICATION, EMULSION GELS, AND OLEOGELS – A COMPARATIVE REVIEW

Authors: Tanja Stojanovska, Tatjana Kalevska, Nevena Gruevska

14:40–14:50

PREVALENCE OF DIETARY SUPPLEMENT AND HERBAL REMEDY USE AMONG TOBACCO PRODUCT CONSUMERS IN NORTH MACEDONIA

Authors: Marija Srbinoska, Valentina Velkovski, Jana Klopchevska, Vesna Rafajlovska, Tatjana Blazevska

14:50–15:00

ANALYSIS OF THE ATTITUDES OF CITIZENS IN THE REPUBLIC OF NORTH MACEDONIA WITH REGARD TO THE PROTECTION AND IMPROVEMENT OF THE ENVIRONMENT

Authors: Biljana Petrovska, Natasha Petrovska

15:00–15:15 | Discussion and Closing Remarks

15:15–15:20 | Closing of the first day Programme

DAY 2 — 30 September 2026

Online Scientific Sessions

Google Meet link: <https://meet.google.com/sko-uata-pcv>

10:00–10:10 | Opening of the Online Session

10:10–11:30 | Scientific Session I

Moderators: Anka Trajkovska Petkoska, Kristina Jankuloska Gacoska, Gorica Pavlovska

10:10–10:20

**SUSTAINABLE VALORIZATION OF GRAPEFRUIT BY-PRODUCTS
THROUGH GREEN EXTRACTION TECHNOLOGIES**

Authors: Klarić, A., Habuš, E., Jurina, T., Benković, M., Valinger, D., Jurinjak Tušek, A.,
Gajdoš Kljusurić, J

10:20–10:30

**“PRODUCTS WITH THE ADDITION OF EDIBLE INSECTS” VERSUS “FOOD
ADDITIVE”: A TERMINOLOGICAL AND LEGAL ANALYSIS IN THE POLISH
RESEARCH CONTEXT**

Authors: Agnieszka Orkusz, Martyna Orkusz

10:30–10:40

FUNCTIONAL AND DESIGNER DAIRY BASED PRODUCTS: RECENT UPDATES

Author: Amrita Poonia

10:40–10:50

**THE INFLUENCE OF PROBIOTICS BIFIDOBACTERIUM LONGUM BB536 ON THE
FATTY ACID COMPOSITION OF FUNCTIONAL FERMENTED SAUSAGES DURING
RIPENING**

Author: Elena Joshevska

10:50–11:10

**IMPROVING MILK QUALITY THROUGH THE IMPLEMENTATION OF A DIGITAL
MONITORING SYSTEM: A CASE STUDY OF A THIRD-LACTATION DAIRY COW**

Authors: Gordana Dimitrovska, Elena Joshevska, Borche Makarijoski, Blagojche Najdovski,
Nikola Karaboloski, Milena Mageroska, Lina Dimovska

11:00 - 11:10

CELL-BASED FOODS: GLOBAL REGULATORY STATUS AND THE LANDSCAPE OF AUTHORIZED PRODUCTS

Authors: Katerina Gerazova-Efremova, Aksu Samet

11:10–11:20

DESCRIPTIVE STATISTICAL ANALYSIS OF TRADITIONAL FOOD PREFERENCES AND TOURIST SATISFACTION IN THE PELAGONIA REGION

Authors: Gjorgji Petkoski, Vesna Antoska Knights

11:20–11:30

COMPOSITE FILMS BASED ON CHITOSAN/PVA: POTENTIAL OF OKARA AS A FUNCTIONAL SUSTAINABLE DOPANT

Authors: Aneta Stajikj, Nishant Kumar, Anka T. Petkoska, Viktorija Stamatovska

11:30–12:50 | Scientific Session II

Moderators: Daniela Nikolovska Nedelkoska, Katerina Temelkovska Ristevska, Tanja Stojanovska

11:30–11:35

ALCOHOL CONSUMPTION AND A LIFESTYLE NUTRITIONAL PROFILE OF ADULTS

Authors: Aksu Samet, Valentina Velkovski

11:35–11:40

FIVE-YEAR TRENDS IN ANTHROPOMETRIC AND CARDIOVASCULAR HEALTH INDICATORS AMONG PHYSICALLY ACTIVE INDIVIDUALS IN KOSOVO (2021–2025)

Authors: Xhevdet Tahiraj, Tatjana Blazhevaska, Valentina Velkovski

11:40–11:50

ASSESSMENT OF HYDRATION RELATED BEHAVIORS: A CROSS SECTIONAL STUDY

Authors: Sezen Samet, Aksu Samet, Valentina Velkovski, Merita Islami Ramadani

11:50–12:00

GENDER DIFFERENCES IN FOOD CHOICE AND HEALTH RISK

Authors: Merita Islami Ramadani, Aksu Samet, Valentina Velkovski, Sezen Samet

12:00–12:10

YOGURT CONSUMPTION AND ITS RELATION TO SALIVARY CALCIUM LEVELS IN PATIENTS WITH DENTAL EROSION

Authors: Akgul Omeragic, Aksu Samet, Sezen Samet, Martina Pavlovska Dimkovski

12:10–12:20

**NUTRITIONAL SIGNIFICANCE OF ZINC: DIETARY SOURCES,
BIOAVAILABILITY, AND CONSEQUENCES OF DEFICIENCY**

Authors: Martina Pavlovska Dimkovski, Tatjana Blazhevskaja, Aksu Samet, Valentina Velkovski, Sezen Samet, Akgul Omeragic

12:20–12:30

**IMPACT OF VITAMIN C AND VITAMIN D SUPPLEMENTATION ON SPIROMETRIC
PARAMETERS IN NON-OBSTRUCTIVE CHRONIC BRONCHITIS**

Authors: Flamur Marky, Tatjana Blazhevskaja, Valentina Velkovski, Vesna Knights, Angelka Jankuloska, Katerina Temelkovska Ristevska, Kristina Jankuloska Gacoska

12:30–12:40

BENEFITS OF PROBIOTICS IN THE TREATMENT OF MALE INFERTILITY

Authors: Biljana Markovska, Valentina Velkovski

12:40–13:00 | Session Discussion

13:00–13:15 | Conference Conclusions and Closing Remarks

13:15 | Official Closing of FNITS 2026

MICROBIOLOGICAL SAFETY OF DIETARY MEAT PRODUCTS INTENDED FOR CHILDREN'S NUTRITION

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Abstract

Ensuring the microbiological safety of ready-to-eat meat products intended for children is essential due to their increased susceptibility to foodborne pathogens. The aim of this study was to evaluate the microbiological safety of newly developed dietary sausages and dietary pates formulated for children's nutrition and produced using appropriate hygienic manufacturing practices and thermal processing. Three experimental formulations of dietary sausages and dietary pates were developed and subjected to microbiological analysis according to ISO standard methods. The analyses included the detection of *Salmonella* spp., *Listeria monocytogenes*, *Escherichia coli* O157:H7, β -glucuronidase-positive *E. coli*, coagulase-positive staphylococci, *Proteus* spp., and determination of the total aerobic mesophilic bacterial count.

The results showed that *Salmonella* spp., *Listeria monocytogenes*, and *E. coli* O157:H7 were not detected in any of the analyzed samples. Counts of β -glucuronidase-positive *E. coli*, coagulase-positive staphylococci, and *Proteus* spp. were below the detection limit (<10 CFU/g). The total aerobic mesophilic bacterial count ranged from 2.48×10^6 to 2.63×10^6 CFU/g in dietary sausages, while all dietary pate samples contained less than 1×10^6 CFU/g, confirming the effectiveness of the applied hygienic manufacturing practices and the heat treatment applied as part of the technological production process.

The obtained results confirmed that the developed dietary meat products complied with microbiological safety requirements for ready-to-eat meat products and were suitable for children's nutrition. These findings support the application of appropriate hygienic manufacturing practices and thermal processing in the production of safe dietary meat products intended for children.

Keywords: Microbiological safety, Dietary meat products, Dietary sausages, Dietary pates, Children's nutrition.