

2nd SCIENTIFIC CONFERENCE

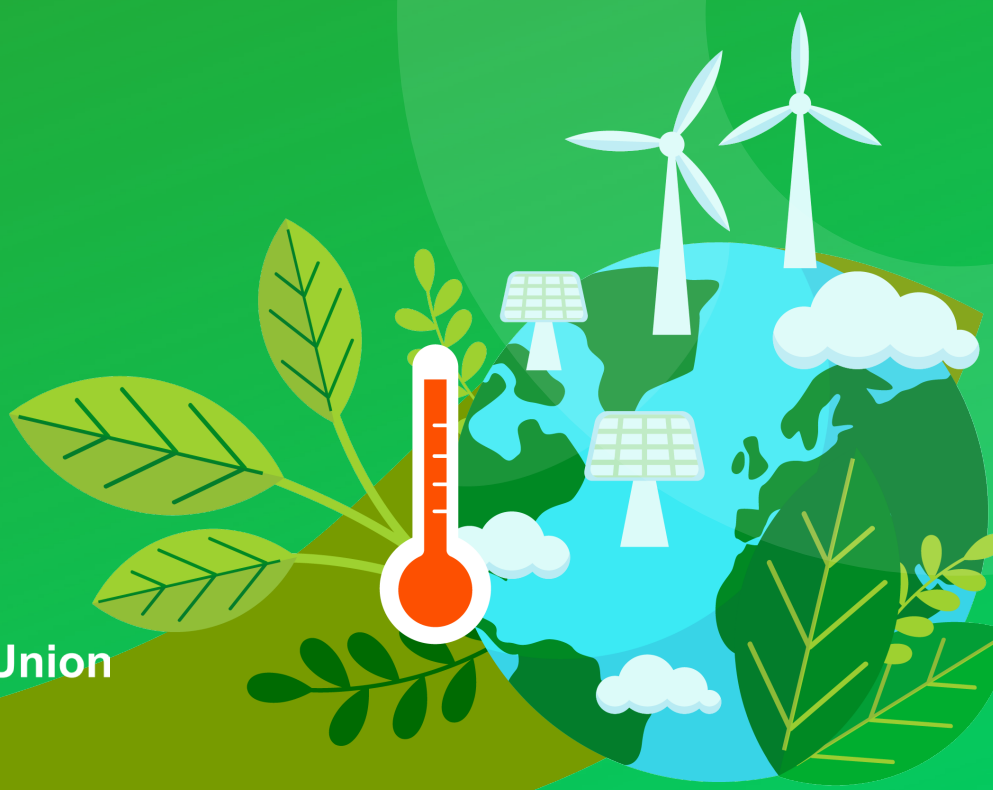
**FOR CRITICAL ENVIRONMENTAL ISSUES OF
THE WESTERN BALKAN COUNTRIES**

BOOK OF ABSTRACTS

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



Funded by
the European Union



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

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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.**

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WELCOME

On behalf of the project coordinators of

“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

The project involves networking of students and scientific researchers from Western Balkan countries for creating dataset base of the latest chemi-metric approaches for environmental pollution/protection and ecological effects as well. Even the environmental pollution is a global problem, the latest research indicate that the Western Balkan countries are significantly affect with the environmental pollution. Furthermore, the Western Balkan countries still deals with the problem of poor population awareness for environmental protection. Therefore, this project idea is to unite knowledge from Western Balkan countries and share with youth from this region, increasing the environmental protection awareness within students. Therefore, the students will have the main role in lunching the environmentally friendly aspects for creating novel chemi-metric models in environmental sciences. The beneficiary effect for the Western Balkan students will be creating long-term valuable and sustainable correlations.

The project has regional focus, networking six universities from the Western Balkan countries (students and scientific experts and professors). Furthermore, this project has a national focus for the students from three state universities from North Macedonia (students from Goce Delčev University in Štip, Ss. Ss. Cyril and Methodius University in Skopje and University in Tetovo and St. Kliment Ohridski University - Bitola). Even the environmental pollution is a global problem, the latest research indicate that the Western Balkan countries are significantly affected with the pollution, pointing strongly on heavy metal industry, uncontrolled xenobiotic introduction in the different parts of the environment, electronic waste disposal etc. Furthermore, the Western Balkan countries still deals with the problem of poor population awareness for environmental protection. Therefore, this project will involve regional and national students and scientific researches in order to provide novel chemi-metric methodology and beneficial environmental protection methods.

The project intends to involve three national and five regional universities (WBAA members). Each regional university will participate with one scientific expert (university professor) and two students (WBAA member). Three national universities (Ss. Cyril and Methodius University in Skopje, State University in Tetovo and St. Kliment Ohridski University - Bitola) will participate with one scientific expert and three students. Goce Delčev University will participate with scientific experts, young researchers and students. Participants from North Macedonia, Albania, Kosovo, Serbia, Bosnia and Hercegovina and Montenegro shall collaborate for the benefit of the whole region for several critical environmental issues.

Overall objective: Use of universities' expertise in creation new valuable, suitable and accurate chemimetric models for predicting and measuring the contamination level in different parts of the environment (air, soil, water, plant food). Creating a regional scale of experience for determining the anomalous parts of the environment. Proposing new ideas for national and regional strategies for environmental protection. Promoting new ideas for Inter-university cooperation. Creating sustainable University network for continuous cooperation in the field of environmental monitoring, pollution and protection (both, for students and researchers).

Assoc. Prof. Biljana Balabanova

Kiril Jordanov

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About the Western Balkans Alumni Association (WBAA)

The Western Balkans Alumni Association (WBAA) is a regional network of students and alumni from the Western Balkan region (Albania, Bosnia and Herzegovina, Kosovo*, North Macedonia, Montenegro, Serbia) who have spent part of their studies in one of Erasmus+ programmed countries. These exchanges were mostly funded by the European Commission. WBAA is neutral, unbiased and nonpartisan in the existing political discourse.

WBAA is supported and funded by the European Commission.

WBAA Mission:

- Advocating modernization and improvement of higher education quality in the region;
- Empowering young people of the Western Balkans on their academic and career development towards successful employment;
- Strengthening regional exchange, collaboration and integration;
- Supporting region's efforts towards European integration;

Web page:

<https://www.western-balkans-alumni.eu/>

FB page: <https://www.facebook.com/WesternBalkansAlumniAssociation/>

Instagram: @wbaassociation

e-mail: info@western-balkans-alumni.eu

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IMPORTANCE OF HAZELNUT (*CORYLUS AVELLANA*) AND MOST COMMON DISEASES IN CULTIVATION IN THE REPUBLIC OF NORTH MACEDONIA

Tina Petrova, Sasa Mitrev, Emilija Arsov

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

e-mail: tina.132861@student.ugd.edu.mk

Abstract

Hazelnut (*Corylus avellana*), which fruits are called hazelnut, is a tree of the family *Corylaceae* or *Betulaceae*, which grows mostly as a shrub, and less often as a lower tree, up to 7m high. Hazelnut has a great economic importance in human nutrition and in the confectionery industry, but it is also used as a decorative species in landscape architecture.

Hazelnut is a fruit that requires probably the least protection, but as more and more new plantings are being planted, it is very possible, as in the case of nuts, for diseases and pests to appear, which will significantly affect the health and yield of hazelnuts. The specific conditions required by this crop are increasingly a problem in the regions where it is grown. Climate problems affecting certain regions are causing enormous damage to culture. The hot waves, storms and droughts that result from climate change cause a number of diseases in hazelnuts such as powdery mildew, bacterial blight, grey mold, leaf spot and others. Alternatives are sought in regions where the impact of climate change is less so that this crop can be grown, experiment with hybrid seedlings that are more resistant to disease and more.

These perennial crops are very important, they have the properties to filter surface water, prevent erosion, as well as their ability to decompose carbon from other plants. There are more than 800 hectares of hazelnut plantations in our country.

The main aim of this research was to identify the most significant causal agent of hazelnut diseases in the region of Eastern part of North Macedonia, on around 200-300 hectares. The appearance of the powdery mildew produced by the fungus *Phyllactinia guttata* (*Scientific name Phyllactinia corylea*) in the period 2020/21, showed a significant losses in hazelnut production.

Keywords: hazelnut, meaning, diseases, climate change, regions, *Phyllactinia guttata*

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