

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



**3<sup>rd</sup> INTERNATIONAL MEETING  
AGRISCIENCE & PRACTICE  
(ASP 2023)**

**BOOK OF ABSTRACTS**

**19-20<sup>th</sup> April 2023**

**Stip, Republic of North Macedonia**



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**Organized by**

**FACULTY OF AGRICULTURE  
GOCE DELCEV UNIVERSITY - STIP, REPUBLIC OF NORTH MACEDONIA  
19-20 April 2023, Stip, Republic of North Macedonia**

Faculty of Agriculture organizes the 3<sup>rd</sup> International Meeting Agriscience & Practice (ASP 2023), giving an opportunity to the participants for presentation and discussion of original scientific and practical results in different fields of agriculture.

The 3<sup>rd</sup> International Meeting Agriscience & Practice (ASP 2023) is organized with an 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 was to connect and promote scientific achievements and practical knowledge presented in different thematic areas.

The scientific and applicative presentations are conducted in sections: 1. Agricultural economics, 2. Plant biotechnology, 3. Plant production, 4. Plant protection, 5. Quality control and food safety, 6. Soil science and hydrology 7. Viticulture, enology and fruit production, with a possibility for oral or poster presentation. Nevertheless, the needs of the agricultural sector entail organization of panel discussions, where invited speakers and panelists have a possibility to share their experience with the Meeting participants.

Dear colleagues, let's again gather together in one place with one joint idea - to combine agricultural science and practice with a purpose to share information, knowledge, experiences and solutions to exceed the problems. The main objective of this Meeting is successful establishment of continuous and valid communication and collaboration among scientific, research and practical activities in agriculture sector in our country, neighboring countries and broader international level. We will achieve the main goal of the Meeting as well as our common objective only by virtue of synergic connections on which we have been working intensively in the past years.

Every science has its significance and value in the given social context, but agricultural production has a special place of vital significance.

**“Only one who knows the way of food movement, from field to table, really respects it”.**

With great joyfulness we thank you for active participation in the Meeting!

**Prof. d-r Emilija Arsov**

**Dean of Faculty of Agriculture  
&  
Chair of the Organizing Committee**

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**IMPACT OF DISEASE SEVERITY ON INFECTED BUNCHES UPON A YIELD OF GRAPE VARIETY VRANEC, CAUSED BY *Plasmopara viticola* (Berk. & M.A. Curtis) Berl. & De Toni Gligor Bojkov<sup>1\*</sup>, Emilija Arsov<sup>1</sup>, Sasa Mitrev<sup>1</sup>**

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**Abstract**

It is essential to assess the severity of Downy mildew in vineyards to predict yield loss accurately. The software platform 'image J' was used to detect and quantify the disease severity by measuring infected berries and diseased leaves relative to healthy tissue. Image-based techniques provide more objective, accurate, and repeatable measurements than visual scoring. Two different plots were compared: A-Control canopy, where the bunches were sprayed only once with a contact fungicide Folpet to prevent yield losses, and B-Standard fungicides treatment, which followed the usual spray schedule during the growing season. Multiple regression analysis was used to predict grape yield loss during the observation period. The researchers also investigated multicollinearity among independent variables to create the most accurate regression model for prediction. The results of the study showed that Downy mildew development on leaves did not affect grape yield, while infected bunches were the most significant factor for quantitative yield reduction. This information could help vineyard managers make more informed decisions regarding the use of fungicides and disease control strategies to minimize yield losses caused by Downy mildew.

**Key words:** *P. viticola*, disease severity, multiple regression analysis, quantitative measurements.

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