

## OPINION

by **Assoc. Prof. Hristo Spasov Spasov, Ph.D., University of Food Technologies-Plovdiv**

of a dissertation for awarding the educational and scientific degree "**doctor**"

by: **field of higher education:** 3. Social, economic and legal sciences

**professional direction:** 3.8 Economics

**PhD Program:** Economics and Management (industry)

**Author:** Stefan Deyanov Georgiev

**Topic:** "Changes in the quality and economic indicators in winemaking when using enzyme preparations"

**Research supervisor:** Associate Professor Tania Petrova Yankova-Lilova, Ph.D., Plovdiv university "Paisii Hilendarski" .

### 1. General presentation of the procedure and the doctoral student

By order No. ПД-21-1116, dated on 25 May 2023 of the Rector of the Plovdiv University "Paisii Hilendarski" (PU), I have been appointed as a member of the scientific jury to ensure a procedure for the defense of a dissertation on the topic "Changes in the qualitative and economic indicators in wine production with the use of enzyme preparations" for obtaining the educational and scientific degree "doctor" in the field of higher education 3. Social, economic and legal sciences, professional direction 3.8 Economics, doctoral program Economics and Management (industry). The author of the dissertation is Stefan Deyanov Georgiev - a full-time doctoral student at the Department of "Management and Quantitative Methods in Economics" of the Faculty of Economic and Social Sciences at the Plovdiv University "Paisii Hilendarski" with scientific supervisor Associate Professor Tania Petrova Yankova-Lilova, Ph.D., from the same university.

The set of electronic materials presented by Stefan Georgiev is in accordance with Article 36 (1) of the Regulations for the Development of the Academic Staff of the PU and includes all the necessary documents, described in the application, submitted by him.

The dissertation has a total volume of 292 pages and includes an introduction, three chapters, summaries, conclusions and contributions, bibliography, table of contents, list of abbreviations, appendices. 4 schemes, 187 tables, 44 diagrams.

The doctoral student has attached 3 publications, of which one report and two articles, one of them is referenced and indexed in the global Web of Science database.

## **2. Actuality of the topic**

The topic of the dissertation work is markedly interdisciplinary. It examines the issue of the use of enzyme preparations in winemaking for the production of red wines and their influence on the quality of the wines and the economic indicators of the production companies that produce them. In this sense, the topic is relevant, because increasing the quality of a given product and more fully satisfying the expectations and preferences of the consumer is always on the agenda. On the other hand, cost-effective solutions are always in demand and highly valued.

## **3. Knowing the problem**

The literature review of the dissertation covers all important factors, operations and analyzes relevant to the quality of red wines. The bibliography, which is used, is represented by a total of 113 sources, of which: 65 in Bulgarian, 27 in English, 4 in Russian, 3 in French and 14 Internet sources.

## **4. Research methodology**

The set goal and identified research tasks are clearly formulated, follow a certain logical course of the experiment and lead to obtaining the final results. The schemes of the experiments are drawn up methodically correctly, they are presented comprehensibly and comprehensively, they are complex and include a large volume of experiments, methods, equipment, and materials, which are used adequate to the problems, which have been solved.

## **5. Characterization and evaluation of the dissertation work and contributions**

The used technological schemes and approaches, as well as analytical methods, are adequate and provide an opportunity to follow the dynamics of the studied indicators and to draw the relevant conclusions. The groups of indicators crucial for determining their quality are marked. These are the phenolic compounds and spectral characteristics of red wines. A conceptual model was developed to reveal dependencies between the quality indicators of the produced wines and the economic condition of the enterprise. The changes in quality indicators in wine production related to the use of enzyme preparations have been studied experimentally in detail and with variants. An analysis was made of the changes in the quality and economic indicators depending on the use of enzyme preparations. In the part conclusions, recommendations for the wine industry and contributions, important facts are indicated and it is a particular conclusion that the application of enzyme preparations gives positive results in terms of quality characteristics of the obtained red wines, the costs involved for this are significantly lower than the income from -high selling price. However, this approach requires an accurate assessment of grape varieties, wine types and their style, so that

there are opportunities to optimize quality and economic indicators. Not for all types and qualities of wine is it economically justified to use enzyme preparations in their production. The presented conclusions and contributions derive from the conducted experiments and the obtained results and adequately reflect their essence.

#### **6. Assessment of the PhD student's publications and personal contributions**

Three publications are presented on the dissertation, of which one report and two articles, one of which is referenced and indexed in the global Web of Science database. They correctly reflect the results of the dissertation student's experimental work and, in quantitative and qualitative terms, satisfy the requirements of Law on the Development of the Academic Staff in Republic of Bulgaria (LDASRB) and the Regulations for its application.

#### **7. Abstract**

The presented abstract objectively reflects the structure and content of the dissertation work.

#### **8. Recommendations for future use of dissertation, contributions and results**

I consider it is expedient to recommend to the dissertation student in future studies to formulate the tasks accurately and precisely, to reduce the volume of the presented evidentiary materials, to present precise guidelines for the application of the obtained results.

### **CONCLUSION**

The dissertation contains scientific, scientific-applied and applied results, which represent an original contribution to science and meet the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria (LDASRB) the Regulations for the Implementation of LDASRB and the relevant Regulations of PU "Paisii Hilendarski".

The dissertation shows that the doctoral student **Stefan Deyanov Georgiev** has in-depth theoretical knowledge and professional skills in the doctoral program **Economics and Management (industry)**. I am convinced that with the development of the presented dissertation, Master Georgiev has acquired complex knowledge in the field of economics and management. He has acquired skills for independent planning and realization of scientific experimental activity, for presentation and interpretation of obtained results, he has mastered a number of analysis methods.

Due to the above, I confidently give my **positive** assessment of the conducted research, represented by the above-evaluated dissertation work, abstract, achieved results and contributions, and I propose to the honorable scientific jury to award the educational and scientific degree "doctor" to **Stefan Deyanov Georgiev** in the field of higher education: 3. Social, economic and legal sciences, professional direction 3.8 Economics, doctoral program Economics and management (industry).

20 June 2023

Prepared the opinion: .....

/Assoc. Prof. Hristo Spasov Spasov, Ph.D./