

REVIEW



regarding the competition for "Associate professor" in the field of higher education: 3. Social, economic and legal sciences", professional field: 3.8. Economics, the scientific specialty: "Economics and management (agriculture)", announced in the State Gazette No. 99/21.11.2025 with candidate Chief assistant Dobri Mateev Dunchev, PhD Department of Economics, Faculty of Economics, Agricultural University - Plovdiv.

Reviewer: Prof. Valentina Lyubenova Nikolova-Alexieva, PhD from University of Food Technologies, field of higher education: 3. "Social, Economic and Legal Sciences", professional field: 3.8. Economics, scientific specialty: "Economics and Management (Business Economics and Corporate Governance)", appointed as a member of the scientific jury by order No. RD16-132/26.01.2026 of the Rector of the Agricultural University - Plovdiv.

1. General data on the candidate's career and thematic development

Chief assistant Dobri Mateev Dunchev, PhD is an established university lecturer and researcher from the Department of Economics at the Agricultural University - Plovdiv, whose professional development is characterized by consistency, interdisciplinarity and a clearly expressed scientific and applied focus.

His education was entirely acquired at the Agricultural University of Plovdiv and shows a logical progression from natural science to economic and management training. He graduated with a bachelor's degree in "Ecology and Environmental Protection", after which he obtained master's degrees in the field of ecology of settlement systems and accounting and control. In 2020, he defended his educational and scientific degree "doctor" with a dissertation dedicated to the assessment of innovative technologies in precision agriculture at the Agricultural University.

His additional qualifications include a number of specialized trainings and international certificates in the field of management, organizational efficiency and business processes.

His academic career goes through all stages of university development - from doctoral student to Chief assistant, and since 2022 he has held the position of "Chief assistant" at the Agricultural University - Plovdiv.

Along with teaching, he actively participates in research projects, publishing activities, and student training.

An essential element of his professional profile is his long-standing practical experience in an international company in the UK, where he held management positions related to production processes and human resources management. This practical experience contributes to the strongly applied nature of his scientific research and the connection between theory and practice .

2. General description of the materials presented.

For the competition for "**Associate professor**", Chief Assistant Dobri Dunchev, PhD has presented a report on his scientific production, as follows:

- ❖ *Scientific publications in the nomenclature specialty – 12 issues, of which:*
 - *Publications related to the doctoral dissertation – 3 issues, which are not subject to review;*
 - *Publications with impact factor – 7 issues*
 - *Publications in peer-reviewed and refereed scientific journals – 2 issues;*
 - *Habilitation thesis (monograph) "Impact of climate change on agriculture and the potential of precision technologies for adaptation and sustainability", (ISBN 978-954-517-336-3) was published by the Academic Publishing House of the Agricultural University - Plovdiv - 1 issue.*
 - *Book based on the dissertation work – 1 pc.*

The personal participation of Chief Assistant Dr. Dobri Dunchev in the mentioned 9 works is illustrated by the fact that 2 are independent, in 3 he is the first author, in 3 he is the second author, and in the remaining 1 work he is the third and subsequent author.

❖ *Textbooks – none*

❖ *Study guides – none*

*To prepare the opinion, **9 items are subject to analysis** .*

3. Main areas of the candidate's research work. Demonstrated skills or aptitude for leading scientific research (project management, external funding attracted, etc.).

The candidate's research activities develop in several interrelated scientific areas:

- **Economic effects of implementing precision technologies** – analysis of effectiveness and barriers to their dissemination.
- **Climate change and sustainability of agricultural production** – risk assessment and adaptation strategies.

- **Agriculture 4.0 and digital transformation** – the role of IoT , AI and big data in resource management.
- **Sustainable development policies and the Green Deal** – economic and institutional aspects.

The habilitation thesis explores the impact of climate change and the potential of precision technologies for agricultural sustainability.

The candidate participates in the implementation of a number of national and international scientific and educational projects, which testifies to his active research activity and integration into scientific networks. On a national scale, he participates in the projects "Innovative models for increasing the competitiveness of agricultural holdings in Bulgaria (AGROIN)" (2018–2020, National Research Fund) and "Impact of structural changes in the agricultural sector on the development of rural areas in Bulgaria" (2018–2021), aimed at analyzing economic transformations and sustainable development of agriculture. Internationally, he participates in educational and scientific initiatives under the Erasmus + program, including **U- Green – University cooperation for promoting the green transition and sustainable practices in education and training** (2022–2024), **NICOPA – New and Innovative Courses for Precision Agriculture** (2018–2021) and **CUPAGIS – New curricula in Precision Agriculture using GIS technologies and sensing data** (2018–2021), oriented towards the development of training, scientific capacity and the implementation of digital technologies and sustainable practices in precision agriculture. Participation in these projects supports the internationalization of scientific activity and the transfer of innovations between the university environment and agricultural practice.

4. Assessment of the candidate's pedagogical training and activities. His role in the training of young scientists.

Dobri Dunchev has 5 years and 10 months of teaching experience at Agrarian University. He teaches students in the Bachelor's and Master's degree programs. The subjects he teaches are: "Precision Agriculture", "Innovation and Innovation Policy", "Business Administration", "Economics of Natural Resources", "Environmental Economics", "Ecoeconomics " and others.

Dobri Dunchev actively participates in various educational initiatives and programs. His average annual classroom and extracurricular employment is 748 hours. He also actively and successfully works with students at the university. Evidence of this is the

scientific supervision of 25 graduates who have successfully defended their thesis.

5. Significance of the results obtained, proven by citations, publications in prestigious journals, awards, membership in international and national scientific bodies, etc.;

Chief Assistant Dobri Dunchev, PhD has presented a report on the citations of his scientific works in publications, referenced and indexed in world-renowned databases (Scopus and Web of Science). 16 citations of four of his publications in research by foreign authors have been identified, a significant part of them have been published in journals with high scientific rank – Q1 and Q2, as well as in Q3 editions, which indicates good international visibility of the scientific results.

In quantitative terms, citations carry 240 points on scientometric indicators.

This volume of references in the international scientific literature shows that the results of the candidate's research are used and further developed by other scientists, which is evidence of their scientific significance, relevance and contribution to contemporary research in the field of agrarian economics and the technological modernization of agriculture.

6. Significance of contributions to science and practice. Motivated answer to the question of the extent to which the candidate has a clearly outlined profile of scientific research work;

The research activity of Senior Assistant Dobri Dunchev has a pronounced scientific-theoretical and scientific-applied character and is focused on a relatively new, but extremely relevant direction – the economic aspects of the technological transformation of agriculture, the implementation of precise and digital technologies and the adaptation of the agricultural sector to climate change. His publication activity is thematically related and consistent, covering problems related to innovations in agriculture, the effectiveness of technologies, sustainable resource management and the role of policies for modernization of the sector.

The monograph submitted for review summarizes a significant part of the candidate's scientific results and is dedicated to the impact of climate change on agriculture and the potential of precision technologies as a tool for adaptation and sustainability. It analyzes the contemporary challenges facing agricultural production - the growing resource constraints, the need to increase productivity while protecting the environment, and the

role of digitalization in achieving more effective farm management.

The study examines the relationship between technological innovation, economic efficiency and environmental sustainability, highlighting the importance of new technologies in reducing emissions, optimizing water and fertilizer use and improving the competitiveness of agricultural producers.

The practical value of the monograph is expressed in specific recommendations for promoting the implementation of precision agriculture through financial, institutional and educational mechanisms, as well as in the need for better coordination between scientific research, policies and agricultural practice.

The research activity of Chief Assistant Dobri Dunchev is concentrated in several interrelated areas. The presented scientific works can be systematized in four thematic areas: precision agriculture, innovations in agriculture, climate change and the effect of Brexit on the labor market in agriculture.

In the proposed scientific works by Dobri Dunchev, in a theoretical-methodological aspect and a scientific-applied aspect, the following contributions can be highlighted in the four areas:

➤ **Theoretical and methodological contributions**

In the presented scientific works of Chief Assistant Dobri Dunchev, significant theoretical and methodological results can be highlighted, which enrich scientific knowledge in the field of agrarian economics and the technological transformation of agriculture.

- Based on in-depth literature analyses, the main concepts related to precision agriculture, Agriculture 4.0 and digitalization as a factor for modernization of the agricultural sector have been systematized and developed.
- The definitions and stages of development of precision agriculture are clarified, as well as the connections between digital technologies, smart management and sustainable agrarian transformation.
- Theoretical propositions have been developed regarding the role of innovations in agriculture and the mechanisms of their dissemination, analyzing the leading conceptual models, barriers and opportunities for the implementation of innovative solutions.
- In the research dedicated to climate change, a systematization of the policies and strategic frameworks of Bulgaria and the European Union aimed at sustainable

development and adaptation of agriculture to climate risks has been carried out.

- The candidate develops and adapts methodological approaches for assessing the effects of the implementation of precision technologies, taking into account the economic, environmental and social dimensions of their application.
- Models have been proposed for analyzing climate risks and for assessing the attitudes and awareness of agricultural producers regarding the use of new technologies, which contributes to the development of methodological tools in agrarian economic research.

➤ **Scientific and applied contributions**

The scientific-applied nature of the research is manifested in the development of specific analyses, assessments and recommendations aimed at the practical development of agriculture and rural areas. Economic assessments of the impact of various precision technologies on production, including the cultivation of soft fruits, have been carried out, and the real benefits of their implementation have been deduced.

- The level of digitalization in Bulgarian agriculture has been analyzed and recommendations have been formulated for accelerating digital transformation processes and wider application of technological solutions.
- Research related to climate change has drawn specific conclusions regarding the dynamics of climate indicators and the need for adaptation measures, as well as recommendations for improving the institutional environment and stimulating investments in sustainable agricultural practices.
- The possibilities for using the instruments of the Common Agricultural Policy to promote innovation and improve agricultural practices in the face of climate challenges have been examined.
- Research on the effects of Brexit on the UK agricultural labor market also has a practical focus, assessing the consequences of the reduction in the EU workforce, as well as the combined impact of Brexit and the COVID-19 pandemic on the agricultural sector.
- Conclusions and recommendations are formulated regarding the necessary policies to overcome the labor shortage and adapt the sector to the new economic conditions.

In summary, the scientific output of Chief Assistant Dobri Dunchev reveals a clearly

formed scientific research profile, characterized by consistency, interdisciplinarity and a strong practical orientation. He successfully combines theoretical analysis with empirical research, uses modern methodological tools and offers solutions with real applicability for the modernization and sustainable development of the agrarian sector in the conditions of climatic, technological and economic challenges.

7. Critical notes and recommendations

The presented scientific production of Chief Assistant Dobri Dunchev is distinguished by its relevance and practical focus, as the research conducted is consistent and well-argued. Along with the undeniable merits of the scientific works, some recommendations can be made with a view to the future development of research activities.

First of all, Dr. Dunchev 's research could be enriched through broader comparative analyses between different EU member states, which would allow for a clearer positioning of Bulgarian agriculture in a European and global context.

It is also advisable to deepen the development of practically applicable models and indicators for assessing the digital transformation of agricultural holdings, which would facilitate their use by institutions and industry organizations.

The above notes are more of a guiding nature and aim to support the further development and upgrading of the candidate's research activities, without reducing the value of the achieved scientific results.

8. Personal impressions and opinion of the reviewer

The candidate is characterized by scientific activity, good international orientation and a clearly expressed research profile. He combines academic competence with practical experience, which gives applied value to his scientific output.

CONCLUSION

Based on the analysis of the candidate's pedagogical, scientific and applied scientific activities, I believe that Senior Assistant **Dobri Mateev Dunchev** meets the requirements of the Law on Agricultural Research and Development of the Republic of Bulgaria, the Law on Agricultural Research and Development of the Republic of Bulgaria and the Regulations of the Agricultural University for its application. The scientific output significantly exceeds the minimum scientometric indicators, and the thematic focus is relevant and significant for the development of modern sustainable agriculture.

All this gives me reason to evaluate the overall **POSITIVELY** his activity.

I would like to propose to the esteemed Scientific Jury to also vote positively, and the Faculty Council of the Faculty of Economics at the Agricultural University - Plovdiv to elect **Chief Assistant Professor Dobri Mateev Dunchev, PhD** as "**Associate Professor**" in the scientific specialty **Economics and Management (Agriculture)** , for the purposes of the Department of Economics, Agricultural University - Plovdiv.

Date: 21.02.26

City of Plovdiv

REVIEWER:

(prof. V. Nikolova-Alexieva)