

OPINION

on the materials for participation in a competition for occupying an academic position Associate professor, in the field of Higher Education 6. Agrarian sciences and veterinary medicine", Professional Direction 6.2. Plant protection, Scientific Speciality "Plant protection (phytopathology)", in the discipline "phytopathology" announced by the Forestry University Sofia, in Government Gazette no. 102 /8.12.2023 г. /, procedure code AGR-AsP-1123-119.

Candidate for participation in the competition is:

1. **Chief assistant professor d-r Zhelyu Georgiev Avramov** - the only candidate for the competition;

Prepared the opinion: D.Sc. Mariana Borissova Nakova, Professor in Plant protection (phytopathology), in Professional direction 6.2. Plant protection, from the Agriculture University Plovdiv

1. Brief biographical details of the applicant(s).

Dr. Zhelyu Avramov was born on 26.12.1967 in the town of Asenovgrad. In 1992, he graduated as an agronomist engineer with a specialization in Plant Protection from the Agricultural University (VSI) Plovdiv. During his studies, he developed a thesis at the Department of Phytopathology, on the topic "Leaf spots disease on lettuce" under the supervision of Professor Boris K. Nakov. In 2014, he defended his PhD dissertation on the topic "Phytoplasmic agents of yellows on the vine (*Vitis vinifera* L.). Methods of diagnosis". In the period from 1993 to 2015, he worked in the National Plant Quarantine Laboratory, holding various positions, the last of which was Head of the Department of Phytopathology. In 2015, after a competition, he was appointed assistant professor, and since 2017 he has been the chief assistant professor at the University of Forestry, in Sofia.

2. The submitted documents and materials of Chief assistant professor Dr. Zhelyu Georgiev Avramov are in full compliance with the requirements of the Regulations for the growth and development of academic staff at the University of Forestry, Sofia.

3. Evaluation of the candidate's educational and teaching activities.

Chief assistant professor Avramov teaches the disciplines "Phytopathology" (from 2022) for the Bachelor's students in "Agronomy" and "Forecasting and Signaling" for the Bachelor's students in "Plant Protection". He organizes the practical training in the disciplines "Phytopathology", "General Phytopathology" and "Agricultural Phytopathology" (2015 - 2023). He participates in the educational process of the Master's students in the specialties "Pest Control and Management", "Control and Management of Plant Protection Products", "Precision Agriculture" and "Ecological Pest Management of Cultivated Plants" in the full-time and part-time form of training. He takes part in the project "Student practices" - phase 2.

4. Evaluation of the candidate's scientific, applied scientific and publication activity.

Dr. Zhelyu Avramov has a wide range of scientific and scientific-applied activities: he studies the influence of Biotic and Abiotic Factors under different conditions of lettuce cultivation; Soil-born Pathogens in cereal crops; Pathogens in Aromatic and Essential Oil plants, *Phytophthora* in Raspberry, etc. At the same time, he also has a narrow specialization

in the field of Phytoplasma and Viral Plant Diseases, and this ranks him among the small number of specialists in this field.

His research has been published in the Monograph "Virus, Phytoplasma and Bacterial Diseases of the Grapevine", in international and Bulgarian journals. He published in the Bulletin of Insectology (Q3), Acta Entomologica Bulgaria, Scientific papers, Series B., Horticulture; Acta Oecologica Carpatica, Agriculture Science and Technology; Journal of Mountain Agriculture on the Balkans; Bulgarian Journal of Crop Science, referenced in global databases. Of interest to science there are the publications of the last workshop of COST Action 0807 "Management of Phytoplasma Associated Disease", and the one printed in the Proceedings of the VIII Congress on Plant Protection (November 25-29, 2019, Zlatibor, Serbia). IOBC-WPRS, Plant Protection Society of Serbia and IOBC-EPRS (2021). Of the required 100 points for publications in scientific journals, referenced in global databases, Dr. Avramov presents articles for 267.1 points.

4.1. Participation in scientific, scientific-applied and educational projects.

Dr. Zhelev participated in 4 international scientific projects and one educational ("Enhancing practical skills of horticulture specialists to better address the demands of European green Deal Initiative" Hort4EUGreen"), financed under Erasmus +.

He participated in 4 national projects, and is a leading scientist in one of them, named "Diseases of medicinal and aromatic plants cultivated in Bulgaria - types of pathogens and spread in Bulgaria". The last one is funded by LTU - 2016 - 2017. Of the national projects, one, namely BG05M2OP001-2.016-0022 "Modernization of higher education for sustainable use of natural resources in Bulgaria", is in the field of education, financed by OP "Science and education for intelligent growth".

4.2. Characteristics of published scientific results

Dr. Avramov is a trained and actively working specialist in the field of Phytoplasmal and Viral Disease Studies in Vineyards, Fruit and Vegetable Crops. His work in the National Plant Quarantine Laboratory has allowed him to have access to a large number of samples of plant materials that are imported into the country, and on the other hand to actively participate in monitoring programs. In the most detailed form, the results of the vine research are reflected in the presented monograph "Virus, Phytoplasma and Bacterial Diseases of the Vine". He has been dealing with phytosanitary monitoring even after entering Forestry University, Sofia. Dr. Avramov continues his research on viruses that cause diseases in vegetable and fruit crops. He investigates the phytosanitary status of lettuce, lavender and raspberries, as well as the influence of abiotic factors. He reports new vectors of phytoplasma diseases. Dr. Avramov validates and adapts methods for pathogen identification.

4.3. Reflection of the candidate's scientific activity in the literature (citations)

Dr. Avramov's publications have been cited multiple times in journals with an impact factor - submitted as an evidence 35 citations in journals and books, referenced and indexed in global databases. For example, 'Candidatus Phytoplasma Solani' genome project and genetic diversity in the Euro-Mediterranean basin", presented at the 3rd European Bois Noir Workshop, Barcelona, Spain, has 9 citations, including 3 in Q1 journals and one book. With 7 citations is also the first report about Stolbur Phytoplasma in the Grapevine in Bulgaria: First detection of Stolbur Phytoplasma in Grapevines (*Vitis vinifera* cv. Merlot) affected with Grape Vine Yellows in Bulgaria. Journal of phytopathology, 2008.

There are citations present of the candidate's papers in peer-reviewed monographs and collective volumes (12) and in non-refereed peer-reviewed journals (6).

This shows that Dr. Avramov is a name that is known by the scientific community in our country and abroad, especially in the field of research on Phytoplasma Diseases.

4.4. Contributions in the candidate's works (scientific, scientific-applied, applied)

In the 21st century, we must not ignore the role of the global trade in agriculture. It leads not only to the import and adaptation of new plant species to our conditions, but also to the introduction of new pathogenic species.

Dr. Avramov conducts a research on crops that are economically important for the Bulgarian Agriculture, namely vineyards and fruit crops. Another part of the research is on lettuce, medicinal and essential oil crops, raspberries, wheat, etc.

The candidate's scientific contributions are related to the reporting of new diseases for the country and the identification and proof of their causal agents and their vectors:

- For the first time in Bulgaria, *Stolbur Phytoplasma* was discovered on the Cherry (*Prunus avium* L.), and in the weed vegetation in the same garden, the presence of phytoplasma infection was found in the *Convolvulus arvensis* L. (G7.2);
- For the first time in Bulgaria, the specie *Phytophthora pseudocryptogea* was isolated and identified as the causal agent of phytophthora root and crown rot in raspberries grown organically, in the region of Kostenets. 3 more species are also reported as potential hosts (G7.19);
- Phytoplasma infection on lavender, with the causatal agent *Candidatus Phytoplasma solani*', was reported for the first time in Bulgaria (G7.12);
- For the first time in Bulgaria, the specie *Phylosticta lactucae* was discovered. (G8.1);
- The presence of Tomato Brown Rugose Fruit Virus (ToBRFV) was found in tomato seeds and plant samples of tomatoes (*Solanum lycopersicum* L.) and pepper (*Capsicum annuum* L.) in new areas for Bulgaria (G 7.17);
- New vectors, the *Fiebiriella florii* and *Cicadella viridis*, of the Bois Noir phytoplasma were found in Bulgaria (G 7.14).

The cucumber is reported as a new host of the tomato spotted wilt virus (TSWV), and as a vector of TSWV - *Franklinella occidentalis* (G 7.1).

A collective study of soil pathogens in wheat was carried out and results are published (G 7.4).

It is also important for science to develop and refine the **methods for diagnosis** and identification of pathogens. This was done by the candidate, in collective studies, in serological protocols for the identification of viral and bacterial pathogens (B 3.1, G 7.15); in the use of semi-selective media for the identification of pathogenic bacteria of the genus *Agrobacterium* (B 3.1); in molecular protocols for the identification of phytoplasma pathogens by interlaboratory tests in fruit species (G 7.3).

In the publications of Dr. Avramov, the following **scientific and applied contributions**, important for science, can be found:

- Monitoring of phytoplasma diseases in orchards was carried out in order to predict infection and develop control measures (G 7.5). The articles have the nature of reviews.
- The distribution of the phytoplasma diseases in the vineyards and the varietal response were studied (G 7.14, G 7.9).

- The phytosanitary status of wheat with respect to soil-born pathogens was studied (G 7.4)
- In the case of lettuce, the reactions of different varieties were tested under different growing conditions (substrates, temperatures, etc.). The influence of abiotic factors on varieties and the development of diseases was studied (G 7.6, G 7.8, G 7.10, G 7.13).
- It is confirmed that the causal Agent of Plum Rust can overwinter on trees in plum orchards in the pre-Balkan region of Bulgaria, and this is a constant source of infection.
- Repellents against wild animals have been tested in order to protect areas of corn and potatoes (G 7.11)
- The pathogenic flora in Bulgaria for medicinal and aromatic plants is described, based on publications to date. In lavender plantations, their phytosanitary status was studied (G 7.7, G 7.12)

5. Evaluation of the candidate's personal contribution

Dr. Zhelyu Avramov proves that he works well in a team with colleagues with different specialties and this is evidenced by the fact that most of his papers are in a team. Some of the papers are the result of his participation in international COST actions. Out of the 29 publications' submitted for the competition, he is the first author of 10 papers. He is the only author of 4 publications. Our colleague Avramov participated in the monitoring surveys as well as in the analysis and interpretation of the results that were published. He has presented the results of his work at International Symposia and Project Workshops.

In the teaching process he is active both in the preparation of materials and in the implementation of practical training. He teaches a range of subjects requiring breadth of knowledge.

6. Critical notes and recommendations

Assistant Professor Dr. Zhelyu Avramov possesses all the qualities to be awarded the Degree of Associate Professor. It is important for the future of the Faculty of Agronomy at the Forestry University that Dr. Zhelev passes on his experience to Assistant Professors and PhD students by supervising their projects and research activities. For Plant Pathology Science it is important to publish textbooks and manuals on General and Special Plant Pathology, Disease Forecasting and Signalling, Epidemiology, Plant Immunity. It is preferable to do this in collaboration with plant pathologists from other institutions, which will allow its use at national level in training and also by agronomists in practice.

7. Personal impressions

I have known Dr. Avramov since his was a student during the years at Agricultural University, Plovdiv. As a student he developed an interest in Phytopathology and developed his diploma work in the department. Qualities such as hard work, diligent learning of research methods and working in a team were evident even then. This was the foundation for his future work and growth into a new professional level at the National Plant Quarantine Laboratory. As a virologist there, he conducted the first trainings of students from the University of Plovdiv on the Identification of Viral Pathogens. He is able to explain in an accessible yet attractive way to attract the attention and interest of his students. His affinity for teaching has also led him to the position at the Forestry University, Sofia.

He is a loyal and dedicated colleague who works well in a team and is always ready to assist with his knowledge and experience.

8. Conclusion.

Based on the analysis of the candidate's teaching, scientific and applied activities, I believe that the chief assistant professor Dr. Zhelyu Avramov fulfills the requirements of the National Law for the growth and development of academic staff in Republic of Bulgaria, the Regulations for the implementation of of the National Law for the growth and development of academic staff in Bulgaria and the Regulations of the University of Forestry and for its implementation.

From the reference made it is seen that he has 1163,26 points on the required indicators; he has publications in journals with a high rating and impact factor, he has also published in Bulgarian journals refereed and indexed; he has participated in scientific conferences at home and abroad. He is a good researcher and teacher with a lot of experience.

All this gives me the reason to evaluate positively the overall activity of Dr. Avramov.

I take the liberty to propose to the Honorable Scientific Jury to vote positively for the award of the academic position of Associate Professor in the Scientific Specialty Plant Protection (Plant Pathology) to Assistant professor Dr. Zhelyu Georgiev Avramov.

I propose the candidate Assistant professor Dr. Zhelyu Georgiev Avramov to take the academic position Associate professor in the discipline "Phytopathology" of the professional field 6.2. Plant protection.

Prepared the opinion

(Prof. Drs. M. B. Nakova)

The opinion was submitted on 15 April 2024: