



STATEMENT

on the competition for the academic position of **associate professor** in the field of higher education: 6. Agricultural science and veterinary medicine; professional direction: 6.1 Plant growing, scientific specialty Plant Biochemistry, announced in the State Gazette No. 36 of 23.04.2024.

Candidate: Chief Assist. Prof. **Adelina Slavova Harizanova** PhD, from the Department of Plant Physiology, Biochemistry and Genetics at the Agricultural University - Plovdiv

Prepared the opinion: Prof. Dr. Malgozhata Yan Moetska-Berova, PhD, from the Agricultural University - Plovdiv, member of the scientific jury according to Order No. RD-16-807/18.06.2024 of the Rector of the Agricultural University - Plovdiv.

1. Brief presentation of the candidate

Adelina Slavova Harizanova graduated in Plant Protection at the Agricultural University of Plovdiv in 2006 and graduated with the educational and qualification degree "Master", and in 2017 after successfully defending a doctoral thesis on the topic: "Study on the physiological effect of silicon in hydroponic cultivation of cucumber (*Cucumis sativus* L.)", she obtained a PhD in Plant Physiology. In 2017, she started working as an assistant professor at the Department of Plant Physiology and Biochemistry at the Agricultural University of Plovdiv (current PPBG), where she has continued her professional realization until now.

At the same time, from 2006 until now, she has been the manager of an agricultural pharmacy, and in 2009-2010 she worked as a junior specialist in the international cooperation department at the National Plant Protection Agency (now Bulgarian Food Safety Agency).

From 2018 to the present, Dr. Harizanova is a member of the editorial board of the Journal of Central European Agriculture.

She speaks English, German and Russian.

2. General description of the scientific production

The scientific output of Dr. Harizanova, including her doctoral thesis and publication activity, meets the requirements for scientometric indicators for the academic position of associate professor and corresponds to the profile of the announced competition.

Dr. Harizanova participated in the competition for the academic position of associate professor with a total output of 35 papers, grouped as follows:

- scientific publications in journals that are refereed and indexed in world-renowned databases of scientific information - 10 items;
- published book based on a defended dissertation for the award of the educational and scientific degree "Doctor" - 1 item;
- articles and reports published in scientific journals, refereed and indexed in world-known databases with scientific information - 10 items;
- articles and reports published in non-refereed peer-reviewed journals or published in edited collective volumes – 12 items;

- studies published in scientific journals, refereed and indexed in world-known databases of scientific information - 2 items.

The personal participation of Dr. Harizanova in the mentioned 35 papers is illustrated by the fact that in 2 papers, she is independent; in 12 papers, she is the first author; in 16 papers, she is the second author; and in the remaining 5 papers, she is the third and subsequent author.

The information on fulfilling the minimum national requirements under Art. 2 "b", par. 2, 3 and 5 of the Law on the Development of Academic Staff in the Republic of Bulgaria for scientific field 6. Agricultural sciences and veterinary medicine; professional field 6.1 Plant growing, from chief assist. prof. Dr. Adelina Slavova Harizanova forms the following scientific indicators:

group "A" - 50 points; group "B" - 146 points; group "I" – 302,83 points and group "D" - 120 points. With a minimum of 400 points for an associate professor, according to Law on the Development of Academic Staff in the Republic of Bulgaria, Dr Harizanova proves 618,83 pts, exceeding the minimum national requirements. From 2017 until now, Dr. Harizanova has participated in 1 international scientific project, 2 national projects and 1 project funded by the Agricultural University of Plovdiv.

The distribution of scientific output by quartiles is as follows: 1 publication in Q1, 1 publication in Q2, 1 in Q3 and 16 in Q4.

3. Teaching activity

Dr. Harizanova's teaching experience so far amounts to 7 years at the Agricultural University of Plovdiv. Her total academic workload as a teacher in the department for which this competition has been announced (lectures, exercises, extracurricular employment) for 2018-2023 amounts to 2548,75 hours. She delivers lectures and exercises with Bulgarian and foreign students of the Bachelor's and Master's degrees in Plant Biochemistry and Enzymology.

4. Scientific research activity

The research activity and achievements of Dr. Harizanova are aimed at solving scientific and applied problems, which can be formed in 5 directions:

- research related to the study of the effect of silicon application in cucumbers and zucchini infected with common spider mite. Foliar treatment with silicon was found to have a positive effect on the state of the photosynthetic apparatus, stimulating the enzymatic antioxidant defense system of plants.
- research related to the study of the effect of the application of biostimulants (protein hydrolysates) under conditions of stress induced by the action of low positive temperatures. Foliar application of the biostimulant Naturamin WSP to cucumber plants grown under low temperature stress conditions has been shown to improve the condition of cell membranes, have a positive effect on water exchange and activate the plants' antioxidant defense system.
- research related to investigating the effect of microalgae application in plants grown on contaminated soils.

Application of microalgae suspension to barley plants grown on soil contaminated with petroleum products has a positive effect on the physiological status of plants by improving water exchange and increasing the activity of the photosynthetic apparatus.

➤ research related to investigating the effect of biostimulant application on yield quantity and quality in alfalfa.

The application of foliar biostimulants Tecamin Max, Amino Bore, Plantafol and Fertigrain Foliar was found to have a positive effect on plants by increasing the content of essential amino acids and activating enzymes of nitrogen metabolism.

➤ research related to the study of the effect of precursor and nitrogen fertilization levels in coriander.

Winter wheat is a more suitable precursor for coriander than sunflower. At a fertilizer rate of 120 kg ha⁻¹ N, the oil content in the yield of coriander is highest.

I accept the author's reference prepared by Dr. Harizanova for her scientific and applied contributions and the manner of their presentation. They correctly reflect the results of the studies that were conducted.

Dr. Harizanova's scientific achievements have been presented in publication, in addition to oral reports (3) and poster presentations (16) at national and international forums. A total of 30 citations (refereed and indexed in Scopus) have been noted, and 8 of them have been selected for participation in the current competition. The candidate has an *h* factor of 3 (according to Scopus).

5. Notes and recommendations

I have no comments or recommendations for the candidate.

6. Conclusion

Based on the analysis of the pedagogical, scientific and scientific-applied activities, I believe that the candidate Chief Associate Professor Adelina Slavova Harizanova, PhD., meets the requirements of Law on the Development of Academic Staff in the Republic of Bulgaria, the Regulations of the Agricultural University for its application. From the presented reference, it is evident that she is an established specialist in the field of plant stress, its overcoming and improving the quality of crop production, with opportunities to teach students, with an outlined profile and achieved scientific and applied contributions.

This gives me a reason to evaluate her overall activity **POSITIVELY**.

I would suggest to the Honorable Scientific Jury to also vote positively, and the Faculty Council of the Faculty of Agronomy at the Agricultural University - Plovdiv to choose the candidate Adelina Slavova Harizanova as an associate professor in the scientific specialty of Plant Biochemistry.

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Plovdiv

Prepared by:
(Prof. Dr. Malgozhata Berova)