



## OPINION

regarding the competition for the academic position "Professor" in the scientific specialty of Genetics, announced in the State Gazette № 36 from 23.04.2024, with candidate Assoc. Prof. Bozhin Maksimov Bozhinov, PhD

by Prof. Galina Teneva Yahubyan, PhD, appointed as per Order № RD 16-808/ 18.06.2024 of the Rector of the Agricultural University – Plovdiv as a member of the scientific jury

In the competition for acquiring the academic position "Professor" in the field of higher education 4. Natural sciences, mathematics, and informatics, professional division 4.3. Biological sciences, scientific specialty "Genetics" for the needs of the Agricultural University – Plovdiv, one candidate participated – Assoc. Prof. Bozhin Maksimov Bozhinov, PhD.

### 1. Brief presentation of the candidate.

Assoc. Prof. Bozhin Bozhinov has a master's degree in agricultural engineering (1990, Higher Agricultural Institute "V. Kolarov", Plovdiv) and a doctoral degree in the scientific specialty Selection and seed production of cultural plants (2000, Agricultural University - Plovdiv). Immediately after acquiring his master's degree, he began his scientific career as a research associate in the "Cotton Breeding" section, Cotton and Durum Wheat Research Institute, Chirpan. His teaching career began in 1995 when he took the position of assistant in the Department of Genetics and Breeding, Agricultural University – Plovdiv. Here he also advanced academically as a senior assistant and chief assistant, becoming an associate professor in 2005 in the professional direction 6.1. Plant Growing. Assoc. Prof. B. Bozhinov served as Dean of the Faculty of Agronomy (2008-2016) and has been the Head of the Department of Genetics and Breeding since 2016, currently the Department of Plant Physiology, Biochemistry, and Genetics. He is a member of several international organizations - FAO Inter-regional Cooperative Research Network on Cotton; International Cotton Genome Initiative (ICGI); European Federation of Biotechnology (EFB); Public Research and Regulation Initiative (PRRI). He is also part of the leadership of the NGO "Institute for Agri-Strategies and Innovations".

### 2. General description of the scientific and teaching production.

In the competition for the academic position of "Professor," Assoc. Prof. B. Bozhinov participated with a total output of 41 scientific works and 4 textbooks and practice guides, grouped as follows:

#### 2.1 Scientific publications in the nomenclature specialty – 40 items, including:

- Publications covering the national minimum requirements for acquiring a PhD – 3 items, which are not subject to review;
- Publications covering the national minimum requirements for acquiring the academic position "Associate Professor" – 25 items, which are not subject to review;
- Publications covering the national minimum requirements for acquiring the academic position "Professor" – 12 items, which are subject to review in this opinion;

The articles which are subject to review are referenced and indexed in the scientific information databases Web of Science (11 items) and Scopus (12 items). Of these, 5 items have an impact factor (total IF-10.52). The candidate is the corresponding author in 5 articles, the first author in 3 articles, and the last author in 3 articles. He is the sole author of 1 publication. Total points in Group of indicators G – 207 points.

2.2 Monograph – 1 item, presented as the main habilitation work and subject to review in this opinion (Group of indicators B – 100 points).

The monograph provides a comprehensive review of worldwide studies on the use of molecular markers such as AFLP, ISSR, RFLP, and SSR in plant and animal breeding. The monograph is interesting, containing rich and multifaceted information, including published personal results, as well as the author's analyses on the discussed issue.

2.3 Teaching aids – 4 items, which are subject to review in this opinion.

- Textbooks – 1 item;
- Practice guides – 2 items;
- Student tests – 1 item.

### 3. Teaching activity

#### *Teaching workload of the candidate*

Assoc. Prof. B. Bozhinov has 29 years of teaching experience, entirely at the Agricultural University – Plovdiv. His classroom and extracurricular workload over the last 5 academic years (2018/2019-2023/2024) is 2130.7 hours, most of which are lecture hours. He has taught in numerous specialties for the educational qualification degrees "Bachelor" and "Master" at the Agricultural University – Plovdiv. Under his supervision, two students have successfully defended their theses, and currently, he supervises five students from master's and bachelor's programs. Assoc. Prof. B. Bozhinov was the scientific supervisor of three PhD students who have successfully defended their dissertations (Group of indicators E – 125 points).

#### *Published teaching materials*

Assoc. Prof. B. Bozhinov is the author of the textbook "General Genetics: Textbook for University Students" (2013). He is a co-author of 2 practice guides – "Teaching Guide on Genetics" (2004) and "Guide for Exercises in Genetics" (2020). Additionally, the candidate is a co-author of "Tests in Biology for University and High School Students in 9th – 10th Grade" (2005). (Group of indicators E – 59.52 points).

#### *Developed courses*

Assoc. Prof. B. Bozhinov has developed 13 curricula (9 mandatory disciplines and 4 elective disciplines) for various specialties and forms of education for the master's degree, as well as 2 curricula for mandatory disciplines for various specialties and forms of education for the bachelor's degree.

Based on the presented teaching and pedagogical documents, it is evident that Assoc. Prof. B. Bozhinov actively participates in the development and delivery of numerous courses in the bachelor's and master's programs of the Faculty of Agronomy at the Agricultural University – Plovdiv, paying attention to individual work with students. He is an established lecturer with long-term experience and qualifications.

### 4. Scientific research activity

#### *Areas of publication*

The main interests of Assoc. Prof. B. Bozhinov focus on the genetics and breeding of important agricultural crops. The conducted research offers new methods and approaches for identifying genetic diversity, revising genomic arrangements, and creating genetic maps, which are essential for the international scientific community. The developed approaches for creating new genotypes of cotton and tomatoes and methods for analyzing internet-based scientific information for genetic engineering contribute to the improvement of agricultural practices and crop resilience to stress factors. Through multi-locus sequence typing, knowledge of pathogenic strains of *E. coli* has been supplemented, which is important for healthcare and

infection control. These contributions highlight the importance of integrating various scientific methods and international collaboration to achieve significant results in the field of genetics and biotechnology.

*Citations and referencing of scientific production*

The total number of citations of Assoc. Prof. B. Bozhinov, with which he participates in this competition, is 53 citations (Group of indicators D - 106 points), which are found in Web of Science and Scopus. The number of citations makes the candidate sufficiently visible among the scientific community in the country and abroad and meets the minimum requirements for acquiring the academic position of "Professor."

*Participation in scientific projects*

Assoc. Prof. B. Bozhinov has participated in 1 international project, where he was the head of the Bulgarian team (Group of indicators E – 50 points).

The metric indicators of the scientific and teaching activities of Assoc. Prof. B. Bozhinov, with a total of 697.52 points, exceed the minimum national criteria for acquiring the academic position "Professor" in the field of higher education 4. Natural Sciences, mathematics and informatics, professional division 4.3. Biological sciences.

**5. Remarks and recommendations.**

I have no critical remarks regarding the materials and activities presented by Assoc. Prof. B. Bozhinov. They meet the topic of the competition both in volume and quality.

**6. Conclusion.**

The scientific output of Assoc. Prof. B. Bozhinov includes a sufficient number of scientific works, containing original scientific and applied scientific contributions, which have received international recognition. Based on the presented competition materials, his development as a researcher with in-depth knowledge and methodological skills in various fields of plant genetics and biotechnology is evident. Based on the analysis of the teaching, scientific, and applied scientific activities of the candidate, I consider that Assoc. Prof. B. Bozhinov meets the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria (ZRASRB), the Regulations for its application (PZRASRB), and the Regulations of the Agricultural University-Plovdiv for its application. All this gives me grounds to positively evaluate his overall activity.

I allow myself to propose to the honorable Scientific Jury to also vote positively, and the Faculty Council of the Faculty of Agronomy at the Agricultural University - Plovdiv to elect Assoc. Prof. Bozhin Maksimov Bozhinov for the academic position "Professor" in the field of higher education 4. Natural Sciences, mathematics and informatics, professional division 4.3. Biological sciences, scientific specialty "Genetics".

26.08.2024  
Plovdiv

Opinion prepared by:.....  
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