



OPINION

regarding the competition for "Associate Professor" in the scientific specialty Plant Protection (Entomology) announced in SG No. 97/ 21.11.2023 with candidate Chief Assistant Professor DIMA MATEEVA MARKOVA, PhD by Prof. MARIYANA YORDANOVA IVANOVA, PhD, appointed according to Order No. RD 16-47/ 22.01.2024 of the Rector of the Agricultural University – Plovdiv as a member of the scientific jury

1. Brief introduction of the candidate

Chief Assistant Professor Dr. Dima Mateeva Markova was born on April 24, 1982 in the city of Plovdiv. In 2004, she graduated from the Agricultural University - Plovdiv in Bachelor educational qualification degree, specialty "Plant Protection" with the professional qualification "Agronomist". In 2005, she graduated from the Agricultural University as "Master", specialty "Ecology and settlement systems". In 2015, she obtained the educational and scientific degree "Doctor" in the scientific specialty "Plant Protection (Entomology)" at the Agricultural University - Plovdiv after a defended dissertation on the topic: "*Gal nematodes of the genus Meloidogyne Goeldi. on potatoes in southern Bulgaria*". Her employment experience began in 2006 at Institute of Vegetable Crops „Maritsa“ - Plovdiv, where from 2006 to 2008 she worked as a research assistant III degree in the Department "Technologies in vegetable production", from 2008 to 2010 she was a research assistant II degree, from 2010 to 2011 – assistant and from 2011 to 2015 – Chief Assistant. In 2020, she started working at the Agricultural University as head assistant, where she works until now.

2. General description of the scientific production.

In the competition for "Associate Professor" Chief Assistant Professor Dr. Dima M. Markova participated with a total production of 65 papers, grouped as follows:

- ❖ *Scientific publications on the nomenclature specialty - 65 issues, of which:*
 - *Publications related to the doctoral dissertation - 4 issues, which are not subject to consideration;*
 - *Publications with an impact factor – 12*
 - *Publications in peer-reviewed and refereed scientific journals – 19;*
 - *Publications and reports in non-refereed peer-reviewed journals and conference proceedings – 42;*

In the general list of the candidate, popular scientific articles and works outside the nomenclature specialty, reports at world and European congresses and poster reports, reports at scientific forums in Bulgaria are presented.

*To prepare the opinion, **61 publications** are subject to analysis.*

The personal participation of Chief assistant professor Dr. Dima Mateeva Markova in the mentioned 61 works is illustrated by the fact that 1 is independent, in 5 - she is the first, in 31 - she is the second, and in the remaining 24 - she is the third and subsequent author.

Scientific works have been published in scientific journals: *Acta Horticulture, Biotechnology & Biotechnology Equipment, Bulgarian Journal of Agricultural Science, Scientia Horticulturae, Horticulturae, Ecologia Balkanica*, etc.

The reference for the fulfillment of the minimum national requirements under Art. 26, para. 2,3 and 5 of the Law on the development of the academic staff in the Republic of Bulgaria for scientific field 6. Agricultural sciences and veterinary medicine, professional

direction 6.2. Plant protection provided by Chief Assistant Professor Dr. Dima Markova exceeds the minimum national requirements. The distribution of scientific production in publications by quartiles is as follows: Q1 - 2, Q3 - 9, Q4 - 1.

The publications are well-structured, include an appropriate literary background, an in-depth analytical part and conclusions.

3. Teaching activity.

Chief Assistant Professor Dr. Dima Markova was appointed to work at the Agricultural University - Plovdiv on 04/07/2021 as assistant in the Department of Entomology of the Faculty of Plant Protection and Agroecology, where she currently works and teaches the disciplines Nematology, General Entomology, etc. The teaching experience of the candidate for the academic position "Associate Professor" at the Agricultural University - Plovdiv as of 01.02.2024 amounts to 2 years, 09 months, 25 days (two years and nine months).

Academic employment of the candidate. For academic employment, the candidate provided Certificate No. HOP5-03/10.01.2024 for a total of 1384.7 hours of direct academic employment from lectures, seminars and extra-auditory employment for the period 2019 – 2023. The total number of hours of academic and employment over the years ranges from 108.8 hours in 2019/2020 to 502 hours in 2021/2022 and 496.9 hours in 2023. It should be noted that in the above-mentioned period Chief Assistant Professor Dima Markova gave an average of 80 hours of lectures per year. The teaching activity is complemented by the supervision of 5 successfully defended diplomas Master's students, studying in the master's program "Plant Protection" - successfully defended theses in 2023, for which the candidate presented a certificate from the Faculty of Plant Protection and Agroecology at the Agricultural University.

Published study materials. The presented book "*Technologies for the production of vegetable crops and potatoes*", in which Chief Associate Professor Dr. Dima Markova participated as a co-author can serve as a good practical guide for students, farmers and experts.

Developed curricula. There is no evidence of developed curricula.

4. Scientific research activity.

Areas of publication. The scientific research of Chief Assistant Professor Dr. Dima Markova is focused on:

- Evaluation of the reaction of susceptibility in different varieties, samples and lines of vegetable crops, potatoes and rice to plant-parasitic nematodes, in connection with the selection of resistance;
- Study of alternative methods to control plant parasitic nematodes;
- Determining the species composition and population dynamics of the main pest and beneficial species in the agroecosystems of vegetable crops;
- Study the efficacy of new plant protection products against pest insects in vegetable crops grown outdoors and in cultivation facilities;
- Development of integrated and biological plant protection systems for the protection of vegetable crops from pest insects.
- Development of technology for cultivation of *Tribulus terrestris* L. as a semi-culture and identification of pests;

- Study of the influence of water deficit on growth indicators and attack by pest insects in pepper mutant lines.

I accept the author reference for the contributions, which are summarized in three groups: scientific contributions of an original nature, scientific-applied contributions and contributions of a confirmatory nature. The obtained results are definitely a contribution to agricultural science and enrich entomological knowledge.

Citing and referencing of scientific production. The total number of citations presented in the reference to the scientific works of Chief Assistant Professor Dima Markova is 12, of which 9 are in scientific publications, referenced and indexed in world-famous databases with scientific information (all 9 with an impact factor) and 3 cited in non-refereed journals with scientific review.

Participation in scientific projects. Chief Assistant Professor Dr. Dima Markova participated as a member of teams in research projects as follows:

- in 14 national projects financed by the Agricultural Academy;
- in 10 national projects financed by the Scientific Research Fund at the Ministry of Education and Science;
- in 3 international projects.

5. Remarks and recommendations.

To the candidate for the academic position "Associate Professor" Chief Assistant Professor Dima Markova, I have the following recommendation: In the future, she should focus her efforts on developing and publishing more independent works. Scientific developments in co-authorship are indicative of successful teamwork, but in collective developments it is more difficult to identify the candidate's personal contribution.

6. Conclusion.

Based on the analysis of the pedagogical, scientific and scientific-applied activity of the candidate, I believe that Chief Assistant Professor Dima Mateeva Markova, PhD, meets the requirements of the law on the development of the academic staff in the Republic of Bulgaria and the Regulations of the Agricultural University for its application. At the competition announced by the Agricultural University - Plovdiv for the academic position of "Associate Professor", she presents herself with a scientific production sufficient in volume and quality in content, there are publications in magazines with a high rank and impact factor; she also published in Bulgarian refereed and indexed journals; she participated in scientific conferences at home and abroad; she worked in scientific research national and international projects. All this gives me reason to **POSITIVELY** evaluate her overall activity. I take the liberty of proposing to the honorable Scientific Jury to also vote positively, and the Faculty Council of the Faculty of Plant Protection and Agroecology at the Agricultural University - Plovdiv to elect **Chief Assistant Professor Dima Mateeva Markova, Ph.D., as "Associate Professor" in the scientific specialty "Plant Protection (Entomology)".**

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PREPARED BY:
(Prof. Mariyana Ivanova, PhD)