

REVIEW

Лесотехнически университет
Агрономически факултет
№ *АФ-7598*
СОФИЯ *17.11.2025*

On the materials for participation in a competition for the academic position of "Associate Professor", in the field of higher education 6 - Agrarian Sciences and Veterinary Medicine, professional field 6.1 - Plant Breeding, scientific specialty "Selection and seed production of cultivated plants", announced by the Forestry University in the State Gazette, issue 58 of 18.07.2025 with procedure code AGR - A - 0625-175.

The candidate for participation in the competition is:

Senior Asst. Prof. Dr. Silvia Valentinova Vasileva from the Department of "Plant Breeding" at the Faculty of Agronomy of the Agrarian University - Plovdiv, field of higher education 6 - Agrarian Sciences and Veterinary Medicine, professional field 6.1 - Plant Breeding, scientific specialty "Selection and seed production of cultivated plants".

Reviewer: Prof. Dr. Argir Todorov Zhivondov – scientific specialty "Selection and seed production of cultivated plants", professional field 6.1 - Plant breeding, field of higher education 6 - Agrarian Sciences and Veterinary Medicine, from the Institute of Fruit Growing - Plovdiv, appointed by order No. ZPS - 498 of 26.09.2025 of the rector of LTU - Sofia.

1. Brief biographical data of the candidate

In the current competition for the position of "associate professor", the only candidate is Senior Assistant Professor Dr. Silvia Valentinova Vasileva. She was born on 20.02.1985 in Plovdiv. She completed her secondary education in biology in 2003 in the city of Targovishte. She completed her Bachelor's degree in biology in 2007 at the "Paisiy Hilendarski" University and in 2009. completed her studies in the Master's degree in Plant Protection at the Agricultural University - Plovdiv, with the acquired qualification of an agronomist. In August of the same year, she completed a qualification course for professional training in the Organic Agriculture program. In the summer of 2012, she participated in a three-month student exchange under the Erasmus program for the purpose of practice at Rothamsted Research, UK, and in the following year, under the same program, she visited the University of Algarve, Portugal. In 2019, she gave a short lecture course on conventional methods for the application of molecular markers in the selection of cereal crops at the Department of Genetics at the National Agrarian University in Moldova. She participated in a scientific conference on biodiversity, held in Egypt in 2018, as well as in a course on gene editing by the EU, organized in the city of Ghent, Belgium. During the period 01.03.2010-01.03.2013. is a doctoral student in the Department of Genetics and Selection at the Agricultural University of Plovdiv, and in 2014 he successfully defended his dissertation on the topic "Selection and genetic analysis of quantitative and qualitative traits in malting barley" - diploma No. DR- 65. During the period 15.05.2013-15.09.2015 he held the position of assistant in "Selection the period 15.05.2013-15.09.2015 he holds the position of assistant professor in "Selection and seed production of cultivated plants" at the Department of "Genetics and Selection" of the Agricultural University - Plovdiv, and since 2015 he is a Chief Assistant in the same specialty and in the same department. Since 2020 he is Chief Assistant in the same specialty in the Department of "Plant Production" at the Agricultural University - Plovdiv.

The candidate for this competition has a very good command of English. He has professional skills for effective teamwork and very good communication skills for training and presenting to an audience. He has high computer skills - Windows, Linux and is fluent in MS Office and the Internet.

2. Compliance of the candidate's submitted documents and materials with those required according to the Regulations for RAS at the LTU.

To participate in this competition, the candidate has submitted a complete set, including 14 documents and materials as follows:

- CV - European format;
- copy of a diploma for completed higher education - Master of Agronomy;
- copy of a diploma for acquired ONS "doctor"
- document for holding the position of JSC "chief assistant"
- medical certificate;
- criminal record certificate;
- certificate of internship in the specialty;
- self-assessment report for fulfilling the minimum national requirements for JSC "associate professor";
- list of scientific publications and their classification;
- report on contributions in the works;
- list of professional and creative activities and appearances;
- summaries of scientific works;
- declaration of authenticity;
- application for participation in the competition.

Summaries of all publications of the participant in the competition are presented, as well as the full text of the monograph. I believe that the submitted documents and materials fully comply with those required by the LTU Regulations.

3. Assessment of teaching and learning activities.

The total work experience of the candidate as of 10.09.2025 amounts to 11 years 9 months and 10 days. Teaching and learning activities are presented for the last 5 academic years. Classroom and extracurricular employment are presented in hours, equated to exercises. Classroom employment varies from 339 hours in the academic year 2022/23 to

482 hours in the next academic year. Extracurricular employment varies from 30 hours in the academic year 2020/21 to 144.2 hours in the 2024/25 academic year. In total, during the 5-year period for both categories of employment, the hours are 2615.1.

In addition to the indicated volume of teaching activities, Ch. Assoc. Prof. Dr. Vasileva has participated in the development of a total of 7 curricula for the Bachelor's and Master's degree programs. She has participated in a total of 10 international and national scientific conferences. She has supervised 7 successfully defended graduate students. She has been a reviewer of 7 graduate students. She has participated in the conduct of two international scientific forums, short-term specializations and mobility under the Erasmus program, a total of 5, the most important of which are indicated in the biographical information. She has prepared reviews of materials for publication in scientific journals.

4. Assessment of scientific, applied scientific and publication activities.

4.1 Participation in projects

One of the main criteria for assessing the ambition and volume of employment of the researcher is his participation in the development of scientific, applied scientific and educational projects.

The information provided shows that the candidate under this competition has participated in the development of one international project "Radiant" and 13 national projects, distributed as follows:

- 5 funded by the National Science Foundation at the Ministry of Education and Science;
- 2 at the Bulgarian Academy of Sciences;
- 6 institutional projects at the National Research Center of the Academy of Sciences - Plovdiv.

He was the leader of two of the projects funded by the National Science Foundation, as well as two of the projects funded by the National Research Center of the Academy of Sciences - Plovdiv, and the executor in the remaining 9 projects.

I highly appreciate the activity of Senior Assistant Professor Dr. Vasileva as a leader and participant in the development of the presented significant number of scientific projects.

4.2 Characteristics of the published scientific results.

In this competition for "associate professor" the candidate is presented with a total output of 21 works, grouped as follows:

- monographs - 1 issue;
- publications in journals with an impact factor - 10 issues;
- of them in foreign refereed - 6 issues;

- in Bulgarian refereed - 4 issues;
- publications in non-refereed editions - 10 issues.

Thirteen of the total number of publications are published in English and eight in Bulgarian. The presented monograph on the topic "Selection-genetic analysis of quantitative and qualitative traits in malting barley" is an independent work of the candidate in the competition and covers 160 pages. It comprehensively reflects the methods of selection and analysis of initial breeding material for the creation of modern breeding programs and a genetic analysis of hybrid offspring has been made. It would be useful for researchers, breeders, specialists and students.

From the review of the presented reference - self-assessment for compliance of scientific production with the minimum national requirements under Art. 2b of the ZRASRB and Art. 2a, para. 1 of the PRAS at LTU, it becomes clear that Senior Assistant Professor Dr. Vasileva has fully fulfilled the criteria for occupying the AD "associate professor". The presented table shows that the required minimum number of points under indicator A is fully met. Indicator B is significantly exceeded, and indicator E is exceeded four times. Although there is no required minimum number of points for indicator E, an additional 140 points are presented for the same. The required minimum total number of points for all indicators /400/ is exceeded by 252.5 points. All points for the individual indicators are accurately calculated and correctly presented by the candidate.

4.3. Citation

The significance of the results obtained from the research activity is also judged by the intensity of citations of the publications. The presented reference for citations includes a total of 24 citations, and the cited works are 9. The citations in refereed and indexed scientific journals - Scopus and Web of Science are 8, and the other 16 citations are in non-refereed publications. The reference shows that the candidate in the competition performs very well on this indicator.

4.4. Contributions to the candidate's works.

The report on the contributions presents the most significant ones resulting from the scientific publications submitted for participation in the competition for the title of Associate Professor. A total of 15 contributions have been formulated, which I generally accept and evaluate as significant. Analyzing the content of the scientific production, I believe that the most important of them can be grouped as follows:

1. Contributions of an original nature

- For the first time in Bulgaria, the distribution and genetic structure of the populations of the pathogen of the net spot disease *Pyrenophora teres* has been studied. It has been established that the attack by regions in the country varies widely;
- For the first time in the country, the genetic diversity of the phytopathogen causing the net spot disease of barley has been established based on the ISSR marker system;
- A methodology has been developed for the evaluation of selection materials by a complex of indicators, based on classical selection criteria and molecular markers;
- A methodology has been developed for the combined use of phenotypic and genotypic- A methodology for the combined use of phenotypic and genotypic data for the needs of selection has been developed;
- It has been proven that in the general phenotypic expression of basic traits such as the length of the main spike, the number of spikelets and grains and the mass of 1000 grains, the genotype is decisive, and the selection according to these indicators is more effective in the earlier hybrid offspring;
- A genetic analysis of disintegrating hybrid generations of barley and tobacco has been applied, in which the effectiveness of the selection and the nature of the inheritance of the elements of productivity have been established;
- The parameters of various combinations of traits related to quality characteristics that brewing barley must possess have been established.

2. Applied contributions

- The barley varieties Neda and Gorast are recommended as the most suitable for cultivation in the country, as they combine to the highest degree the quality characteristics productivity, adaptability and brewing-technological qualities;
- For the purposes of the breeding programs for malting barley, varieties and lines that are donors of specific important traits have been specified;
- A significant volume of bean genetic plasma has been studied, covering local varieties, natural populations, mutant generations, hybrids and breeding lines, with the aim of proposing candidate varieties for state variety testing.

5. Assessment of the candidate's personal contribution.

The candidate's personal participation in the presented publication activity is distributed as follows:

- independent publications - 3 issues;
- with one co-author - 2 issues;

- with two co-authors - 6 issues;
- with three or more co-authors - 10 issues.

6. Critical remarks and recommendations

I have the following two remarks to the candidate in the current competition for "associate professor

1. The disciplines in which exercises were performed and possibly lectures were given are not specified.

2. There are no popular science articles that would contribute to greater accessibility of the results obtained from the research work and a larger number of readers interested in the novelties in science - agronomists, farmers-producers of malting barley, brewers, etc.

I believe that the critical remarks made do not lower the level of the candidate's research work. I am convinced that they will be taken into account and avoided in future career development.

7. Personal impressions

I know Senior Assistant Professor Dr. Vasileva mainly from my in-depth acquaintance with the duly and systematized materials and documents for participation in the current competition for the position of Associate Professor. From them I was convinced that she is a precise and persistent researcher-breeder and I believe that she is also a precise teacher. I have no doubt about the successful and future career development in both research and teaching activities.

8. Conclusion

Based on the thorough review and analysis of the materials submitted for this competition, I believe that they fully meet the requirements of the Law on the Promotion of Research and Development of the Republic of Bulgaria and the Regulations for its application to the Bulgarian Technical University for the appointment of an Associate Professor. This gives me reason to evaluate them POSITIVELY. I will vote positively for Senior Assistant Professor Dr. Silvia Vasileva to be appointed Associate Professor in the professional field 6.1 - Plant Breeding, scientific specialty "Selection and seed production of cultivated plants".

I would like to suggest that my colleagues on the esteemed Scientific Jury also vote positively.

03.11.2025.

Reviewer:

/Prof. Dr. Argir Zhivondov/