

OPINION



on the scientific works and the materials for participation in a competition for the academic position of Associate Professor, field of higher education 6. Agricultural sciences and veterinary medicine, professional field 6.1. Crop production, scientific specialty "Fruit growing", announced by the University of Forestry in SG no. 32 / 03.04.2020, procedure code AGR-AsP-0320-37.

Candidates for participation in the competition are:

Chief Assistant professor Dr. Denitsa Dimitrova Serbezova, Department of Agronomy, Agronomy Faculty, University of forestry

Prepared the opinion: Prof. Dr. Metodi Teoharov Kostadinov, ISSAPP "N. Poushkarov" - Sofia, field of higher education 6. Agricultural sciences and veterinary medicine, professional field 6.1. Crop production, scientific specialty Soil Science, e-mail: mteoharov@abv.bg; mobile phone 0884 123 823

1. Brief biographical data of the candidate

Chief Assist. Prof. PhD Denitsa Dimitrova Serbezova was born on January 29, 1980 in the city of Varna. She completed her higher education in 2002 at the Agricultural University - Plovdiv, majoring in Agronomy - Viticulture and horticulture. As a student she focused in the field of fruit growing, where she was consistently evaluated with excellent results - academic discipline, diploma work and state exam. During the period 2003-2006 she developed a doctoral dissertation on "Raspberry breeding - economic and biological evaluation of elites" at the Department of Berry Crops - Kostinbrod at the Institute of Agriculture - Kyustendil, which she defended in 2007 and obtained the educational and scientific degree "doctor". For a short time (around half a year) she worked at the same institute. In 2008 she was elected as an assistant professor, and in 2011 - as a chief assist. prof. in the Department of Agronomy of the Faculty of Agriculture at University of forestry. In 2009-2011 she conducted a long-term specialization at the Heilongjiang Academy of Agricultural Sciences in Harbin, China.

The applied materials and documents unequivocally show that Dr. Serbezova is a researcher and lecturer with a proven scientific and pedagogical career, who over the years has carried out extensive research and pedagogical activities. Develops, participates and works on the implementation of current curricula, scientific and applied research projects and contracts. She has a very good language training and follows the innovations and world achievements in fruit growing and in agronomic science in general. She has the necessary training and skills to use new software methods and work with modern computer equipment. She is an active participant and executor of various initiatives and tasks at the academic level. Actively participates in the work of FC, SEU and various scientific and scientific-public forums.

2. Conformity of the submitted documents and materials of the applicant, according to the requirements of RDAS in UF.

For participation in the competition Dr. Serbezova presents: list and set of scientific and applied works and publications, reference for the main contributions and achievements, reference for the cited scientific works, reference - self-assessment for compliance of the scientific production with the minimum national requirements. reference - additional activities, summaries of

publications, official notes issued by the Dean's office, certificates for completed courses and participation in scientific forums, inventions and awards, list of citations, short biography and other supporting and evidentiary materials. I accept as accurately and correctly filled in reference - sample (under art. 60, para. 4, item 8 and art. 65a, para. 4, item 8 of RDAS in UF), from which it can be seen that the candidate has overfulfilled all minimum requirements and has 723.33 points, grouped by indicators for holding the academic position of "Associate Professor". Dr. Serbezova applies all necessary documents and materials in electronic and paper form. The necessary requirements and terms of announcing the procedure of the competition from its publication in SG, issue 32 / 03.04.2020 to the order of the Rector Corresponding Member, Prof. DSc Ivan Iliev, which confirms the composition of the jury.

3. Evaluation of the educational-teaching activity

Dr. Serbezova is a long-term lecturer with a heavy workload in several specialties - Agronomy, Plant Protection, Perennial plantations and Horticulture, Breeding and Seed Production of Cultivated Plants. They cover lectures and exercises in important disciplines and modules of agronomic science - Fruit growing, Rare fruit crops, Form and ornamental fruit growing, Technologies in Fruit growing, Berry crops, Production of planting material, Urban, suburban and greenhouse horticulture, Postharvest technologies in fruit growing Breeding of fruit species and Pomology. She independently develops four and in a team eight Course syllabuses, of which nine are EDP master and three EDP bachelor degrees. She supervises educational practices in fruit growing for the second and fourth year students, she has been a scientific supervisor for 5 students and has reviewed 2 diploma theses. Scientific guidance is exercised in the preparation of oral presentations by students presented jointly at national conferences and those with international participation. She has published a university guidance (Guidance for exercises in fruit growing), which is widely used by students.

4. Evaluation of the scientific, scientific-applied and publishing activity

The scientific fields in which Dr. Serbezova works are grouped as follows:

1. Breeding and genetic diversity of berry crops.
2. Evaluation and updating of the methods of breeding and criteria for application of scientific-methodical approaches in variety study and variety testing of fruit and berry crops.
3. Systems, technologies and technological solutions for berry crops.
4. Systems for crown formation and types of pruning in fruit crops.
5. Systems, technologies and technological solutions in fruit growing.
6. GIS and genetic database for the main fruit and berry crops.

7. Agroecology and agroecological zoning of fruit crops.

I highly appreciate her agronomic, scientific and methodological training, experience and knowledge, combined with her practical orientation and her great work done in these areas. Her ability to work in a team enables her to carry out important research projects and to carry out large-scale research on a wide variety of cultures.

4.1. Participation in scientific, applied and educational projects

Dr. Serbezova presents a list of her participations in projects, which show that she has worked on 14 projects, of which 11 research and 3 educational. All of them are led by famous scientists in the field of agronomic science and its contacts with them give a significant impact on the quality of the achieved results. The projects are completed and I believe in the correct reflection of the specified deadlines. Given the topics that have been worked on and the institutions from which they have been adopted, I believe that certain results and contributions have been made. They are funded by SAA research programs. Research projects almost cover scientific publications, which is proof of her perseverance and consistent participation in research, writing papers and successful completion of projects. The educational projects are coordinated by Prof. R. Tomov and are related to the development of young people and the scientific capacity of UF. They are financed under OP "Human Resources".

4.2. Characteristics of the published scientific results

For participation in the competition are presented 37 scientific publications in the nomenclature specialty. They can be classified and grouped as follows: monographs - 1, studios - 1, guidances - 2, publications in scientific journals - 22, of which in foreign - referenced - 7, in Bulgarian refereed - 2, in non-refereed - 13, publications in proceedings of scientific conferences - 5, of which - in international 4 and in national - 1, scientific-popular publications - 6, which are not subject to evaluation. According to their place of publication are distributed as follows: articles in foreign publications - 6, reports in papers from international scientific conferences - 4, articles in national journals - 13, reports in proceedings from national conferences - 1. There are 19 publications in Bulgarian and 18 in a foreign language. In over 50% of the works the candidate is an independent or first author. This determines her leading role in research and clearly confirms her scientific profile and nomenclature specialty in the announced competition.

I want to emphasize the scientific and academic construction of each publication, which is combined with the high requirements of individual publications. Secondly, Dr. Serbezova uses well considered and scientifically based approaches in setting the aims and objectives of each development, which guarantee definitely complete results. Third, the scientific and conceptual design and depth with which each study is conducted leads to specific addressees in science and

practice. In this regard, the results of original and confirmatory nature build on individual scientific fields and provide new knowledge about individual academic and scientific disciplines, improve their subject and content. The results of scientific and applied nature are a kind of manual and guide for professionals and producers.

4.3. Reflection of scientific publications in the literature

From the prepared list it is established that Dr. Serbezova has a total of 16 citations, 9 of which are in English. The works that are cited are of fundamental importance and are reflected in countries with developed fruit growing (America, Poland, Romania, Switzerland, Korea, Armenia, Iran). The publications in which they are reflected are strictly specialized and scientific. The Bulgarian scientists who cite it are also well-known researchers in the field of fruit science and in time notice the relevance of its developments and their importance for science and practice.

4.4. Contributions in the works of the candidate (scientific, scientific-applied and applied).

The overall research activity of the candidate is characterized by strict methodological and scientific objectivity, precision and consistency, fundamental depth and practical application. It addresses new topics and tasks that have not been sufficiently explored so far. I accept the chosen way of arranging the contributions as very correct and accurate. It is an indicator that Dr. Serbezova knows in detail the scientific achievements in the field of fruit growing at our country and abroad and complete the novelties with her research.

I consider to be an original and multi-layered scientific work the monograph "Raspberry - cultivation and selection", which includes the latest world and own achievements for this culture and proves in a modern way the technology of its cultivation. I highly appreciate the publications with fundamental and scientific-methodological orientation and the achieved contributions, reflected under № B3.1, G8.2, G8.3, G7.2, where strictly methodical, scientifically proven and tested methods and approaches are used (molecular , screening, multiplication, biometric, stationary and field) for investigation of raspberries.

Extensive research has been carried out and the great genetic diversity and much wider distribution of strawberries and raspberries has been established, compared to European and American varieties. Through precise methods and analyzes it has been proven that genetic plasma can be used in the breeding work and in the variety testing of raspberries and strawberries, both in our and foreign varieties. A wide range of parameters were used and the biological and economic qualities, the susceptibility to various pathogens, incl. and soil, of 145 new raspberry genotypes, of which 37 hybrids and 108 elites. As an important original contribution, I consider the created genetic database for berry crops, which is essentially a reference, but with a deeply scientific

character. I highly appreciate the research with DNA markers in breeding, clonal micropropagation and the use of introduced and local varieties, vegetative and reproductive performance of crops, artificial inoculation, hybridization and genetic basis and the impact of diseases and pests on crops, biological effect of the applied scientific methods and approaches.

The confirmatory contributions provide new data and information and in practice build on previous studies on widely grown fruit crops (apple, sweet cherry, sour cherry, pear, blackcurrant, etc.). They are related to the biometrics of growth and vegetative performance, the application of appropriate types of crowns and types of pruning, the chemical and biochemical composition of biomass, inheritance of characteristics etc. As a confirmatory and original contribution I accept the research on the established relationship between soil fertility and the application of pruning for intensive apple growing.

In the scientific-applied activity clearly stand out the developments "Handbook of the entrepreneur in the perennial plantations" and "Formation and pruning of the fruit trees and bushes". By their essence, these are very well-developed practical guides. The agro-ecological, biological and economic characteristics for widely used in the production of berry crops (raspberry, chokeberry, currant, blackberry, blueberry, sea buckthorn) are also issued in practical form.

The scientific- applied contributions are dominant and prove that Dr. Serbezova is a highly erudite expert who finds a place at the national level. They are related to specific technological solutions and recommendations for practice concerning agrotechnics, physiology, breeding and choosing of rootstocks, propagation, fruiting, types of pruning and types of crowns, transfer of high-yielding varieties, fruiting and the economic effect of growing fruit crops. For this purpose, a large range of different varieties of raspberries, sweet cherries, walnuts, pears, plums etc. have been studied.

VI. Assessment of the candidate's personal contribution

In most of the works Dr. Serbezova is an independent or first author. Her scientific profile is clearly distinguished in the collective developments and her participation in them is easily established. I accept the performed experimental and analytical work in the field and in the laboratory as her personal work. The works with applied and scientific-applied character are written in popular language and can be used in practice. The candidate is well acquainted with and uses important diagnostic and evaluation indicators for the individual crops, adopted by leading schools and recognized by farmers.

VII. Critical remarks and recommendations

I refrain from making serious critical remarks, given the established high scientific style of developing scientific works. However, I would recommend Dr. Serbezova to pay more attention to

the research of soil and nutrient environment, content and reserves of nutrients and soil moisture, which largely determine the soil fertility and the intensity of each phase in fruit crops. Demonstrative and colorful materials have been insufficiently used to reflect crown types, pruning types and crop pomology. I doubt the economic efficiency of growing blueberries in garden conditions in the lower parts of the country. The current nature of each development obliges the candidate to consider publishing the results in daily popular science publications.

VIII. Personal impressions of the candidate

I am well acquainted with the work of Dr. Serbezova due to the fact that I was a member of the Scientific Council of the Institute of Agriculture - Kyustendil for two mandates. I have been working with colleagues from UF for years. During all this time I had the opportunity to observe her perseverance in research and her desire to conduct and monitor the experiments, her responsible and thorough reporting, which I attended. Her participation in the presented scientific works is very clear, especially in the research with the berry crops. Her collective work shows that she knows how to work in a team and this makes her a wanted researcher among colleagues from fruit growing science and agricultural practice.

ЗАКЛЮЧЕНИЕ

Представената научна продукция на кандидата за участие в конкурса е значителна по обем и съдържание и е подкрепена със строго методични изследвания и доказани нови данни и информация. Получените резултати обогатяват с оригинални и научно-приложни приноси овощарската наука. Те имат важно научно, агроекологично, стопанско и социално значение за аграрната ни икономика. Кандидатът е утвърден преподавател и прецизен изследовател, талантлив учен и високо ерудиран експерт, активен организатор и общественик на ЛТУ. Всичко това ми дава основание да препоръчвам с пълна убеденост членовете на почитаемото Научно жури да гласуват за даване на академичната длъжност „Доцент” в научно направление 6.1. Растениевъдство, специалност Овощарство на гл.ас. д-р Деница Димитрова Сербезова.

CONCLUSION

The presented scientific production of the candidate for participation in the competition is significant in volume and content and is supported by strictly methodological research and proven new data and information. The obtained results enrich the fruit science with original and scientific-applied contributions. They have important scientific, agroenvironmental, economic and social significance for our agricultural economy. The candidate is an established lecturer and precise researcher, a talented scientist and highly erudite expert, an active organizer and public figure of

UF. All this gives me reason to recommend with full conviction the members of the esteemed Scientific Jury to vote for the academic position of "Associate Professor" in the scientific field 6.1. Crop production, specialty Fruit Growing, on Chief Assistant Professor PhD Denitsa Dimitrova Serbezova.

PREPARED OPINION

(PROF. PI



24.07.2020