

OPINION

on the materials submitted for participation in a competition for the academic position "Professor", in the discipline "Forest plantations" in the field of higher education 6. Agrarian sciences and veterinary medicine, professional area 6.5. Forestry, scientific specialty "Forest Plantations, Selection and Seed Production", announced by University of Forestry in the SG, 107/20.12.2024 (procedure code FOR-P-1124-153)

Candidate for participation in the competition: Associate Professor Nasko Aleksandrov Iliev PhD

Prepared the opinion: Prof. Sonya Hristova Bencheva PhD, University of Forestry; field of higher education 6. Agrarian sciences and veterinary medicine, professional field 6.5. Forestry, scientific specialty "Forest melioration, Forest protection and Special forest uses", member of the scientific jury (order of the Rector of the University of Forestry 3ПC-89/17.02.2025).

1. Brief biographical data

Assoc. prof. Nasko Iliev graduated from the 7th EPU, Sofia in 1985. In 1992, he graduated as a Forestry Engineer at the Forestry University, where in 1997 he received the educational and scientific degree "Doctor" with the dissertation on the topic „Possibilities for increasing of giant sequoia (*Sequoiadendron giganteum* (Lindl.) Buchh.) using by seed and vegetative propagation“.

From 1993 to 1998 he worked as head of department "Supporting" in the Vitosha nature park. Since 1995 he has been a part-time assistant, since 1998 – chief assistant, and since 2005 until now – associate professor at the Department of Silviculture, Faculty of Forestry, University of Forestry. In the period 2016-2020 he is the Deputy Dean of the Faculty of Forestry. He is a member of the Academic Council of the Forestry University for two terms – from 2016 to 2024.

Assoc. prof. Iliev participates in 16 national and international research projects, being the leader of two of them. Participated in committees for program and institutional accreditation in 2006-2013, 2016-2020 and from 2024. Participates in organizing committees of scientific conferences, in expert councils and seminars.

He has participated in 3 courses to improve his qualifications. He is fluent in Russian and English. Has excellent digital skills.

2. Conformity of the submitted documents and materials of the candidate with the minimum requirements, according to the Regulations for development of the academic staff in the University of Forestry

The scientific production presented by assoc. prof. Nasko Iliev, the attached documents and materials correspond to the requirements in the Regulations for the development of the academic staff at the University of Forestry. The reference shows the implementation and exceeding of the minimum required points for the academic position of "Associate Professor".

Fulfillment of the minimum requirements by groups of indicators for AP "Professor"

Group of indicators	Contents	Required for professor/score	Performed by assoc. prof. Nasko Iliev
A	Indicator 1	50	50
B	Indicator 2	-	-
B	Indicator 3 or 4	100	100
Г	Indicators 5-12	200	270,8
Д	Indicators 13-15	100	855
E	Indicators 16-24	100	338,3
Total Points		550	1614,1

3. Characteristics and assessment of the candidate's activity

3.1. Learning and teaching activity

In the presented materials, there are no references about the candidate's classroom employment for the last year, as well as about the academic disciplines he led, but from his CV and from the website of the Forestry University, it can be seen that he gives lectures, exercises and learning practices in the disciplines: Forest plantations – Forestry, master degree; Forestations – Forestry, bachelor degree; Establishment of new forests – Business management, master degree. Given the department's decision to announce the competition, it can be assumed that the candidate fulfills the required academic employment.

Assoc. prof. Iliev was the scientific supervisor of part-time PhD student eng. Lyubka Varbeva with the topic of the dissertation „Silvicultural aspects of common sycamore (*Acer pseudoplatanus* L.) breeding in Bulgaria“. He has also supervised 26 students who successfully defended their diploma theses in the specialty "Forestry". He is a co-author of 1 textbook (on the competitive discipline – Forest Plantations), 7 manuals and teaching aids (4 of them after his election as associate professor).

3.2. Other professional and creative activities

Assoc. prof. Nasko Iliev has provided evidence of the following activities:

- **Scientific expertise:** participation with an opinion in the composition of two scientific juries in competitions for the Academic position "Associate Professor" and for obtaining the Educational and Scientific Degree "Doctor".
- **Participation in organizing committees of scientific forums:** vice Chairman of the Organizing Committee of an International Scientific Conference „Forestry Bridge to the Future“, 2021; member of the organizing committee of the VII National Scientific Conference "Management and Sustainable Use of Biological Resources", 2018.
- **Participation in expert councils.**
- **Participation in work committees at Forestry University:** on quality of education to the Academic Council (2016-2024); on attestation at the Faculty of Forestry (2011-2015; 2024); for accreditation (2006-2013; 2016-2020; 2024).
- **Seminar organizer** on grafting, 2001; member of the Advisory Council at the Vitosha State Public Enterprise.
- **Applied expertise:** prepared phytosanitary expertise on the state of tree and shrub plants in the city Bansko (2012).

4. Assessing scientific, applied research and publication activities of the candidate

For the current competition, Assoc. Prof. Nasko Iliev has submitted a list of 35 scientific publications. An abstract and 7 scientific papers related to his participation in the competition for the ESD "Doctor" are also described, as well as 13 scientific publications, 3 teaching aids, etc., submitted in the competition for the AP "Associate Professor", which are not subject to consideration in the competition for AP "Professor".

Distribution of the number of publications according to their type

Types of publications		number	points
B3	Habilitation thesis - monograph	1	100
Г6	Published book based on a defended dissertation	1	40
Г7	Scientific publications in journals referenced and indexed in world-renowned scientific information databases	16	163,5
Г8	Articles and reports published in non-refereed peer-reviewed journals or published in edited collective volumes	17	67,3
Total Points			370,8

A total of 16 scientific publications were published in refereed and indexed journals, 1 of them in Web of Science with IF (impact factor), 11 in Scopus with SJR and 4 in Web of Science without IF. In non-refereed peer-reviewed journals are 17 of the publications, 7 of which in foreign journals. Of the total number of publications, 26 are in English and 9 – in Bulgarian.

Number of co-authors in the publications: individual – 1 pcs; with one co-author – 9 pcs; with two or more co-authors – 24 pcs; leading author – 14 pcs.

4.1. Participation in scientific, applied and educational projects

Assoc. Prof. Nasko Iliev presented a list of participation in 3 international and 13 national scientific, being the head of two of them.

4.2. Characteristics of published scientific results

The publications with which Assoc. Prof. Iliev participates in the competition for AP "Professor" were made in the refereed and indexed editions: Propagation of Ornamental Plants, Forestry ideas, Advances in Bulgarian Science, Journal of Forest Science, Silva Balcanica, in Journal of Korean forest society, Analele Universității din Craiova, Oltenia journal for studies in natural sciences, Management & sustainable development, Reforesta, Ecological Engineering and Environment Protection, Management and Sustainable Development, Forest Science, as well as in edited scientific collections.

4.3. Reflection of the candidate's scientific activity in the literature (citation)

In the list of established citations Assoc. Prof. Iliev presents 37 citations of 16 publications in referenced and indexed in world databases editions, 20 citations of 15 publications in monographs and peer-reviewed collective volumes, as well as 20 citations in non-refereed peer-reviewed journals of 10 publications. Additionally, 19 citations of 10 publications in dissertations are described. This covers many times the minimum requirements of the citation criterion.

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

The research work of Associate Professor N Iliev includes important contributions that he has divided into three main scientific directions:

- Forest seed production
- Nursery production
- Afforestation.

A. Scientific and applied contributions

• Forest seed production

- An analysis of the National Seed Production Base has been conducted and the most important tasks and prospects for the development of forest seed production in our country have been identified. The role of selection activity in Bulgaria in the creation of forest seed production sources for the sustainability and productivity of future forest crops is substantiated (Γ8.2).

- For the first time, a survey has been conducted of all sources of reproductive materials from *Acer platanoides* L., included in the National Register of Forest Seed Production Bases in Bulgaria. All plantations and crops in which the species dominates the composition have been studied, with the aim of including new basic sources of reproductive materials (Γ7.5).

- The established seed production sources of black locust in Bulgaria were studied, seed production, their sowing qualities and the applied pre-sowing preparations were analyzed. (Γ8.1).

- The sowing qualities and seed dormancy of sowing materials from species with limited distribution in our country have been studied – *Acer platanoides* L., *Prunus avium* L. and *Acer pseudoplatanus* (Γ8.11; Γ7.2).

- For the first time in our country, the sowing qualities of *Sterculia platanifolia* L. seeds have been studied (Γ8.8).

• Nursery production

- A review of nursery production was conducted, including historical development, classification of nurseries, organization and layout of the nursery area, soil cultivation, agrotechnical measures, production technologies and working methods, as well as the specific features of the production of planting materials of various types (B3.1)
- Methods for cloning *Fraxinus excelsior* L. (Γ8.10) and *Acer pseudoplatanus* L. (Γ8.15) in vitro have been developed.
- The rooting possibilities of common sycamore cuttings have been studied (Γ7.12). The possibility of rooting pre-etiolated and de-etiolated shoots of this species has been proven. (Γ7.15).
- The influence of the type of auxin and its concentration, the optimal timing for obtaining cuttings and the genotype on the induction of callusogenesis, rhizogenesis and the quality of the formed root system of cuttings from three cultivars of *Chamaecyparis lawsoniana* (Γ8.7)
- For the first time, an attempt was made for vegetative propagation and re-introduction of the *Taxus baccata* L. in its natural habitats in Strandzha and Vitosha (Γ8.17).
- The belief that grafting cannot be done in the summer has been disproved. The possibility of free choice of grafting method in this phenophase is outlined (Γ7.1; Γ7.4; Γ7.7). It has been proven that the most significant factor in the success of component fusion and growth is the season of operation.
- The studies done on the basis of the foreign experience of propagation by grafting in *Acer pseudoplatanus* L. (Γ7.12) are grounds for recommending grafting on rootstocks at rest (spring) as well as on awake ones (summer) by copulation.
- For the first time in our country, spring and autumn grafting of *Syringa vulgaris* L. and its cultivars on rootstocks of two-year-old vegetative seedlings of *Ligustrum ovalifolium* Hassk has been achieved. It has been found that propagation can be successfully achieved by grafting in spring and summer (Γ7.16).
- The influence of selective herbicides on the reaction of seed and vegetative seedlings has been established and the possibilities for their application in practice have been proven. Studies have focused on seedling production from Euro-American poplar cultivars (Γ7.9), *Pinus nigra* L. (Γ8.5), *Cedrus atlantica* (Γ8.6) and *Quercus cerris* L. (Γ8.9).

• Afforestation

- An overview of the historical development of afforestation in Bulgaria lists the main mistakes, problems and changes in afforestation policy and future challenges (Γ8.14).
- The existing silvicultural experience related to ecological requirements, the specifics of natural regeneration, establishment and cultivation of forest crops, growth, productivity of plantations, and silvicultural activities has been analyzed. (Γ7.12).
- The experience of silvicultural practice with sycamore in Bulgaria is summarized. It has been established that sycamore can form pure stands and dominate the composition of mixed stands (Γ8.13; Γ7.11).
- In the large-scale studies conducted on the condition, growth and productivity of *Prunus avium* L. (Γ8.4), *Acer platanoides* L. (Γ7.5) and *Acer pseudoplatanus* L. (Γ7.11) in our country, all existing plantations in Bulgaria have been studied, and it has been proven that all three species can form pure plantations.
- Comparative studies in the Kresna region have established a significant production potential of the sweet chestnut, which is superior to the Scots and Austrian pine. (Γ8.3) .
- An in-depth analysis of the distribution of *Robinia pseudoacacia* in Bulgaria, the areas it occupies, its economic value, the age structure of the plantations, the growing conditions, productivity classes, afforestation technology and crop management has been carried out. The diseases and pests identified in Bulgaria and the ways to combat them are examined (Γ8.1).

B. Applied contributions

• Forest seed production

- A methodology for long-term treatment of cuttings with indolebutyric acid, stimulating rooting, has been proposed (Γ7.15).

- With the participation of the candidate in working groups at the Executive Forestry Agency for the preparation of regulatory documents affecting nursery production, Regulation No. 4 of 15.02.2012 on the conditions and procedure for registration of forest nurseries and for the production of seedlings in state-owned forest nurseries was updated.

- **Afforestation**

- The only studies of their kind in our country have been conducted to investigate the effects of the use of mechanical protectors on survival, height and diameter growth in broadleaf (Г7.10) and conifer tree species. (Г7.13).

- The need to develop a unified methodology for quantitative assessment of the competitiveness of forestry companies in Bulgaria is justified. (Г7.14).

5. Assessment of the candidate's personal contribution

The scientific contributions of Assoc. Prof. Nasko Iliev are indisputable and show a very good ability for independent and team work.

6. Critical remarks and recommendations

I have no remarks on the scientific production of Assoc. Prof. Nasko Iliev.

My criticism is directed only at the preparation of some materials for the competition:

- The submitted documents lack a summary report on the candidate's academic employment, as well as on the disciplines taught.

- Contributions are presented in too much detail in the form of publication abstracts. They should be summarized and presented independently.

7. Personal impressions

I know the candidate as a serious, responsible and responsive colleague. My joint work with Assoc. Prof. Nasko Iliev is related to the promotion of Agroforestry in Bulgaria. I do not doubt his personal involvement in every work presented. His ability to work in a team is highly valued, which is evidenced by the large number of collective publications and projects with his participation.

8. Conclusion

After a detailed acquaintance with the documents and materials submitted by the applicant, and established compliance with the requirements of the Regulations for the development of the academic staff at the University of Forestry, I propose Associate Professor PhD Nasko Aleksandrov Iliev to be elected as an "Professor" in the discipline "Forest plantations " in a professional field 6.5. Forestry.

17.03.2025

Member of the scientific jury:

(Prof. S. Bencheva) /