

STATEMENT

Лесотехнически университет
Агрономически факултет
№ АФ-8284
СОФИЯ 04.11.2024г.

on the materials for participation in the competition for the academic position of 'Professor' in the field of higher education 6. Agricultural Sciences and Veterinary Medicine, Professional Field 6.1. Crop Science, scientific specialty 'Agrochemistry,' in the discipline 'Agrochemistry,' announced by the University of Forestry in State Gazette, Issue 59, p. 69, dated 12.07.2024; procedure code AGRP-0524-132."

Candidates for participation in the competition are:

1. **Assoc. prof. Veselin Iliev Kutev PhD**

Prepared the opinion: Assoc. Prof. Vera Zamfirova Petrova PhD, professional field 6.1. Crop production, scientific specialty "Amelioration" (incl. erosion and the fight against it)", appointed as a member of the scientific jury by Order No. ZPS-515/18.09.2024 of the Rector of the University of Forestry-Sofia

1. Brief biographical details of the candidate

Associate Professor Veselin Kutev was born on 16.02.1961 in Sofia, Biala Slatina. He graduated from the State Agrarian University "V. V. Dokuchaev" in Kharkiv, Ukraine in 1987 with a degree in agronomist, agrochemist and soil science. Since 1988 he has been a PhD student in the Department of Agrochemistry of the ISSPP "N. Pushkarov" institute in Sofia. In 1991 he received the scientific degree "Candidate of Agricultural Sciences" with a dissertation on "Nitrogen Mineralization Research". In 2004 he was awarded the title of "Senior Researcher II degree", and in 2013 he became "Doctor of Science" with a dissertation on "Geostatistical approach to the study of spatial variation of soil indicators".

Between 2012 and 2014, Assoc. Prof. Kutev is the head of the Bureau for Transfer of Technological Solutions in Agriculture at the ISSPP "N. Pushkarov Institute. Since 2014 he has been an associate professor at the University of Forestry in Sofia, and from 2016 to 2019 he was head of the Department of Agriculture and Herbology. Since 2024 he has been Head of the Department of Agronomy.

Assoc. Prof. Kutev teaches lectures and practical exercises, works with graduate and doctoral students, conducts research and has an assets publication activity. His competencies include agrochemical research, plant nutrition and fertilization, nitrogen transformations in soils, heavy metal and eutrophication studies, precision and organic agriculture. She participates in numerous national and international projects and is fluent handle with English, French and Russian languages.

2. Compliance of the submitted documents and materials of the candidate with the requirements according to the Regulations for Academic Staff Development at the University of Forestry

In the announced competition, Assoc. Kutev participated with 50 publications and 15 citations, as well as with documents and materials proving the guidance of PhD students, participation in national and international projects and teaching aids.

It is evident from the submitted documents that for all the indicators presented, the criteria for minimum national requirements have been significantly exceeded.

3. Assessment of the teaching activity of the candidate

Associate Professor Kutev has held an academic position at the University of Forestry since 06.10.2014, until 2019 he was Head of the Department of Agriculture and Herbiology, and since March 2024 he has been a head of the Department of Agronomy at the Faculty of Agronomy. With ten years of teaching experience, Assoc. Prof. Kutev has gained considerable experience. He manages 2 national and 4 international educational projects, participating in 2 more projects. Under his leadership, 4 doctoral dissertations were defended.

Assoc. Prof. Kutev is a co-author of "Technology for fertigation in growing vegetables", a textbook for students and farmers. He has developed curricula in "Agrochemistry" and "Agrotechnics and Fertilization" for the specialty "Agronomy" (Bachelor, full-time and part-time) and "Plant Protection" (Bachelor, full-time and part-time). Also, Assoc. Prof. Kutev has developed bachelor's degree programs in "General Crop Production" and "Crop Production", as well as master's programs in "Agrotechnics and Fertilization", "Precision Crop Production", "Soil Fertility Management", "Organic Residue Management", "Minimum and Zero Soil Tillage", "Good Practices in Manure Management" and "Fertilization of Plants in Precision Agriculture".

Assoc. Prof. Kutev presents 11 curricula and has achieved 425 points in scient metric requirements, significantly above the minimum 100 points. This provides him with an excellent grade for teaching activities.

4. Evaluation of the scientific, applied and publication activities of the candidate

4.1. Participation in scientific, applied and educational projects

For participation in the competition for "Professor", Assoc. Prof. Kutev has presented 8 projects: 2 national, 4 international, in which he is the leader, and 2 educational (international and national), in which he participates.

Assoc. Prof. Kutev is the coordinator for Bulgaria of a project of the Sixth Framework Programme of the EU (FOOD-CT-2004 003375), a project of the Ministry of Foreign Affairs of Greece (2004-2006), and a project manager funded by the Flemish Government (2007-2010). He also manages a project at the National Science Fund - Contract DNTS/Austria 01/2 (2017) and two scientific projects with national funding (2011-2013, 2016).

The participation of Assoc. Prof. Kutev also includes the international project SEE/A/118/2.2/X MONITOR II (2011-2012) and the national NFNI No INOV_09_0004 (2011-2013).

His projects are related to his research and teaching work, covering sustainable agriculture, organic production, soil nutrient balance, climate change, soil monitoring, fertigation, balanced plant nutrition and precision agriculture.

4.2. Characteristics of the published scientific results

The publications submitted for review reflect the progressive ideas and the high level of research work of Assoc. Prof. Kutev. This is evidenced by his excellent academic background and the application of modern, innovative methods, as well as by the competent use of software products such as GlobSnow, Sigma Plot 14, and GS+ Geostatistics. Most of the materials are related to his leadership or participation in national and international projects, as well as doctoral research. Many of the articles have been published in prestigious journals indexed in Scopus and Web of Science, with 30.4% having an impact rank (SJR) and 10.9% having an impact factor (IF). The research work of Assoc. Prof. Kutev covers several areas:

1. **Fertilization and fertigation systems** in field and vegetable crops, study of the behaviour of nutrients in the soil (publications: B4,11; D7,3-5; D7,13; D8,8-9,12; D11).

2. **Testing of new varieties and fertilizers** under different conditions (G7,9; G7,16; G8,1-2,4,17,19).
3. **Sustainable Yields and Environment** in Conditions of Climate Change (B4,9; G6,1; G7,10-12; G8,10,18).
4. **Climatic changes and anthropogenic factors**, including the influence of hydrological and meteorological conditions (B4,1-3,7-8; G7,1; G8,15).
5. **Precision agriculture** and geostatistical analysis to monitor spatial variations of nutrients in soil (B4,5,10; B7,7; G6,2; G7,2,6; G8,3,7,11; D11,1).
6. **Applied research at farm level**, including project development and work with farmers (G5; G7,8; G8,5-6; E23,1).

These publications and projects show the significant contribution of Assoc. Prof. Kutev to research and teaching in the field of agriculture.

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

According to the reference for citations, with the required 100 points for indicator D13, Assoc. Prof. Kutev has 225 points, which significantly exceeds the citation criterion. He has presented 15 citations, all in scientific journals, refereed and indexed in global databases such as Scopus and Web of Science. Citations from non-referenced publications are not included.

The presented citations are from journals with high scientific ratings (Q1 and Q2) - 46.7% of them are in such journals. In addition, 53.3% of the total number of citations are in journals with an impact factor (IF).

4.4. Contributions to the candidate's works (scientific, scientific-applied, applied)

In the competition for professor at the Department of Agronomy, specialty Agrochemistry, Assoc. Prof. Veselin Kutev has presented 46 contributions reflecting his scientific research and publications. They demonstrate his creative spirit, professional knowledge and skills for working in teams with different interests. Ass. Kutev shows a high level of competence in the field of statistics and the use of software products. Contributions such as B4,4; B4,6; G7,6; G7,14; G11,13; G11,15 partially refer to the specialty "Agrochemistry".

Systematised contributions include:

Scientific contributions

1. **Genetic architecture**: Plant height scores in 358 winter and 14 spring wheat varieties (G11,4).
2. **Drone research**: Changes in the NDVI index for wheat and rapeseed and determination of nitrogen norms (B4,5; G7,5).
3. **Statistical analysis**: Normal distribution of mineral nitrogen in a corn field (G11,8).
4. **Magnetosphere and ion density**: Variations of parameters in the upper zone of the magnetosphere (B4,7; G7,1).
5. **Water Resources and Climate**: Assessment of Water Resources in Bulgaria Related to Climate Change (B4,8; D11,15).
6. **Hydrological modelling**: Change in snow cover and water resource (G11,16).
7. **Floods and monitoring**: Analysis of floods on the Southern Black Sea coast (B4,1).

Scientific and applied contributions

8. **Water resources**: Study of winter precipitation and yields (B4,2; B4,3).
9. **Organic carbon**: Influence of manure on soil organic carbon content (G7,2).
10. **Fertigation and fertilization**: Studies on zucchini, onions and lettuce (G7,4; B4,11; D7,11; G7,12; G7,13; D18).
11. **Electrical conductivity (EU)**: Movement of nutrients during fertigation (G11,10; D11,11;

D11,12).

12. **Nitrate pollution:** Need for mathematical control models (B4,9).
13. **Nitrogen immobilization:** Differences in joint and separate administration (G7,3).
14. **Straw grain ratio:** Differences in wheat varieties and fertiliser rates (G11.1; G11.2).
15. **Residual mineral nitrogen:** Studies in Northern Bulgaria (B4.9; G7.8).
16. **Crop rotation and fertilizer rates:** Efficiency in different crops (G7.5).
17. **Precision agriculture:** Variations in fertilizer rates for different crops (G11,3).
18. **Monitoring network:** Construction and analysis of soil variability (G7.6; G7.7; G11.6; G11.7).

Applied contributions

19. **New fertilisers:** Impact on the growth of different crops (G7,9; G7,16; G11,17; G11,19).
20. **Soil acidification:** Influence of fertigation and compost (G7,10).
21. **Forest damage assessment:** Use of multispectral cameras (B4,10).

5. Assessment of the candidate's personal contribution

He knows the work of his PhD students and I can say that his contribution and support in the preparation, implementation and defence of their dissertations is enormous. Knowing his work, I am deeply convinced that it is a personal matter.

6. Critical remarks and recommendations

I have no serious remarks to the submitted materials for occupying the academic position of "professor".

7. Personal impressions

I have known Veselin Kutev since 2006, when I started as a PhD student at the ISSPP "Nikola Pushkarov" Institute. Over the years, we have had many professional contacts. He is an excellent colleague with high professional training, innovative thinking, desire to work. We have worked together in the international project with Austria, within which we have participated in various events. As colleagues at the University of Forestry – Sofia. Assoc. Prof. Kutev demonstrated high competence in front of the students, who rated it highly.

8. Conclusion

Based on the in-depth and original research and publication work, innovative approaches and fulfilled scient metric indicators, I believe that Assoc. Prof. Veselin Iliev Kutev PhD fully meets the requirements of the Academic Staff Development Act and the Regulations of the University of Forestry for occupying the academic position of "Professor". I positively assess his overall activity and suggest that the members of the esteemed Scientific Jury vote positively Assoc. Prof. Veselin Iliev Kutev to take the academic position of "Professor" in the discipline "Agrochemistry" from Profesional field 6.1. Plant breeding.

Statman by:

(Assoc. Prof. Vera Petrova PhD)