

## **POSITION**

**Regarding the contest for the academic position “Associate Professor” in the scientific specialty Land Improvement (including Soil Erosion Control) from professional field 6.1 Plant Growing, higher education area 6. Agrarian Sciences and Veterinary Medicine, issued in the State Gazette No 5 on 17.01.2020 for the purposes of the Department Physics, Erosion, Soil biota at the Institute of Soil Science, Agroecology and Plant Protection “N. Poushkarov” (ISSAPP)**

**Candidate for the contest: Chief Assistant Gergana Slavova Kuncheva, PhD**

**Reviewer: Assoc. Prof. Dr. Milena Stoyanova Kercheva, ISSAPP “N. Poushkarov” scientific specialty Soil Science, professional field 6.1 Plant Growing, appointed as a Chairman of the Scientific Jury according to the Order № РД-05-107/22.04.2020 of the Chairman of the Agricultural Academy**

### **1. Short presentation of the candidate**

Gergana Slavova Kuncheva is the only one candidate in the contest. She graduated with Master Degree in Biochemistry and microbiology from Sofia University “St. Kliment Ohridski” in 1995. She obtained Masters in Business Administration from the University of Rouse “A. Kanchev”. From 1996 till 2005 year she held the positions of head of the Biochemistry laboratory and of research assistant at the Institute of Agriculture and Seed Science “Obraztsov Chiflik” Rouse. From 2006 till 2011 year she was manager for specialized production in the greenhouse at „Parkstroy“ EOOD, Rouse. Kuncheva joined the Laboratory for soil analyses and erosion investigations at ISSAPP “N. Poushkarov” in 2011 year. Since then she participated in carrying out the erosion control experiments in the experimental field Trastenik and performed the agrochemical and microbiological soil analyses in the laboratory situated in Rouse. Under the supervision of Prof. DSc. Petar Dimitrov and Prof. Dr. Svetla Rousseva she prepared the dissertation on „Soil protection and agricultural efficiency of advanced minimal and unconventional erosion control tillage when growing crops on slope lands”, and received her PhD in „Land Improvement (including Soil Erosion Control) in 2016 year. Dr. Kuncheva has been employed as Chief Assistant in the Department of Soil Erosion (now Physics, Erosion, Soil biota) at ISSAPP N. Poushkarov since 2017 year.

Gergana Kuncheva specialized in maize selection in Russia and Moldova and in new methods and technologies for investigation and reduction of greenhouse gas emissions from soil in the University of Helsinki (Environmental soil science research group) in the frame of the program Erasmus+.

Dr Kuncheva is a part-time lecturer at the Agricultural Machinery Department at the Agrarian and Industrial faculty at the University of Rouse “Angel Kanchev”.

### **2. Scientific production**

The scientific production of Dr. Kuncheva presented in her application for contest for the academic position “Associate Professor” is grouped as follows:

❖ Publication in the scientific specialty:

- 5 publications associated in her PhD thesis, which are not considered for evaluation in the contest;

- 2 monographs: one by herself and the other has a protocol for the equal contributions of the authors;
- 1 publication in journal indexed in WoS database.;
- 1 extended paper (more than 20 pages);
- 33 publications in reviewed journals or proceedings included in the National reference list of contemporary Bulgarian scientific publications with scientific review.
  - ❖ 1 Technology – „Improved soil protection technologies for minimum and unconventional soil tillage in the production of wheat and maize on inclined terrains”. Approved by the Standing Committee for innovations and technologies at the Agricultural Academy (AA), Sofia, with decision of the Board of AA, protocol No PД – 09-09/30.10.2015 Authors: Dimitrov P.D., Beloev H.I., Trifonova T.M., Rouseva S.S., Stoyanov K.E., Ilieva D.K, Kuncheva G.S..
  - ❖ *Educational handbook* – 1.
  - ❖ *Scientific-popular publications* – 1, *popular publications* -5.

**The position for the contests is based on the analysis of 37 publications. The scientometric indicators show that the scientific production of Dr. Kuncheva complies with the National minimum requirements for holding the academic position “Associate Professor”. Her personal contribution is demonstrated with 10 publications written by herself, first author of 10 publications, second author – of 4 publications, and 3<sup>rd</sup> and further author – of the rest 13 publications.**

### **3. Scientific activity.**

#### *Research area.*

- soil protection technologies for minimum and unconventional soil tillage for crop production on sloped terrains;
- effect of traditional and soil protection technologies, and of applied mulching materials on soil organic matter content and composition and on greenhouse gas emissions ;
- agrochemical and microbiological indicators for soil properties changes due to soil water erosion processes and as results of the applied technologies for crop growing on sloped terrains.

#### *Citing of the publications.*

According to the presented by Dr. Kuncheva references, 8 of her publications were cited in 12 publications, and one of them was cited in 3 journals indexed in WoS (2) and Scopus (1).

#### *Participation in research projects.*

Gergana Kuncheva participated in 12 research projects from 1999 year till now: 4 at ISSAPP “N. Poushkarov”, AA; 3 - at the Institute of Agriculture and Seed Science “Obraztsov Chiflik” Rousse, AA; and 5 – at the University of Rousse “A. Kanchev”. Currently she led the following themes in two projects of ISSAPP “N.Poushkarov”: “Effect of different soil tillage on soil losses, organic matter and greenhouse gas emissions” and “Improvement of soil structure and water stability of aggregates of structureless and sandy soils via addition of organic materials and soil microorganism inoculation”

### **4. Scientific and practical importance of the candidate’s contributions. Justification of the research profile of the candidate,**

The contributions of Dr. Gergana Kuncheva are in the field of soil water erosion and particularly in estimation of the effect of traditional and soil protection technologies on soil erosion characteristics, soil properties and crop development on sloped terrains. The achieved results are based on long-term field experiments conducted with the participation of Dr. Kuncheva on Calcaric Chernozems in the Experimental field for soil erosion investigations in Trastenik, Rousse. The stated 14 contributions by the candidate outline two important scopes of her research activity: 1) obtaining and analyzing data for estimation of soil erosion losses and changes in main soil properties, such as soil organic matter, nutrient elements, microbiological, hydrological and physical soil characteristics; 2) participation in elaboration of soil protection technologies and methodologies for their application for crop production on sloped terrains.

#### **5. Critical remarks and recommendations.**

The experimental field in Trastenik, Rousse, remains the only one experimental fields of ISSAPP "N. Poushkarov" for investigation the soil erosion processes and testing erosion control technologies on slopped agricultural lands. I hope that Dr. Kuncheva will continue the experimental investigations in this field, and particularly on greenhouse gas emissions under traditional and soil protection technologies by winning funded projects and by attracting PhD students. I recommend her to publish the results of her investigations in indexed journals with impact factor, as the research scope and data from field experiments are highly evaluated

#### **6. Conclusion.**

According to the analysis of the scientific, scientific-practical and educational activities of the candidate, my conclusion is that Dr. Gergana Slavova Kuncheva fully complies with the requirements of the Act for the Development of the Academic Staff in the Republic of Bulgaria (ADASRB), Regulations for its implementation and Rules for implementation of ADASRB in Agricultural Academy for occupation the academic position "Associate Professor".

The production which Chief Assistant Dr. Kuncheva presented for this position, as well my personal impressions of the candidate, revealed her high qualification in the field of the experimental investigations of soil erosion, data analyses and interpretations, high motivation for research activity, responsibility and ambition for excellence.

My overall assessment of the candidate for this position is **POSITIVE**.

I recommend to the Distinguished Scientific Jury and to the Scientific Council for "General agriculture, soil science, agrochemistry and land improvement", to support with positive vote the application of Chief Assistant Dr. Gergana Slavova Kuncheva for the acquisition of the academic position "**Associate professor**" in the scientific specialty Land Improvement (including Soil Erosion Control).

Date:15.07.2020  
Sofia

**Position prepared by:**  
Assoc. Prof. Milena Kercheva

(.....)