



REVIEW

Concerning contest for “Associate Professor” in the scientific specialty „Sheep and Goat Breeding”, announced in the State Gazette No. 98 dated 17 Nov 2020, candidate Chief Assist.prof. Atanas Spasov Vuchkov

By prof. Radoslav Ivanov Slavov, DSc, appointed pursuant to Order No. RD - 16-49 /22 Jan 2021 by the Rector of the Agricultural University – Plovdiv as member of the scientific jury

Reviewer: prof. Radoslav Ivanov Slavov, DSc, retired, field of higher education „Agrarian Sciences and Veterinary Medicine”, professional area „Animal Husbandry”, scientific specialty „Sheep and Goat Breeding”, appointed as member of the scientific jury by order No. RD-16-49 /22 Jan 2021 by the Rector of the Agricultural University - Plovdiv.

The only candidate in the competition for the academic position of "Associate Professor" in the scientific specialty "Sheep and Goat Breeding", announced for the needs of the Department of Animal Sciences at the Agricultural University - Plovdiv is Chief Assist.prof. Atanas Spasov Vuchkov, PhD. The candidate completed his higher education in 2000 at the Faculty of Veterinary Medicine at Trakia University - Stara Zagora, with professional qualification Master in Veterinary Medicine. From 2002 till 2005 he was a full-time PhD student in the scientific specialty "Sheep and Goat breeding" at the Department of Animal Sciences at the Agricultural University - Plovdiv. After winning a competition, since March 2005 he has been appointed a full-time Assistant professor in Animal Husbandry at the same department. From March 2007 until October 2009 he was a Senior assistant professor, and since October 2009 to the present moment he has been a Chief Assistant professor. In 2009 he successfully defended his dissertation paper on: "Study on the maternal ability and some characteristics of meat productivity in White and Splotch-faced Maritsa sheep", for which he was awarded PhD scientific and educational degree in the scientific specialty "Sheep and Goat Breeding". The career development of the candidate is

related to his active teaching, research, project and research activities. Based on the materials presented on the competition, as well as on the basis of personal impressions from the candidate's activity, I allow myself to give high assessment of his career and thematic development.

In the competition for "**Associate Professor**" **Chief Assist.prof. Atanas Vuchkov, PhD** participates with a total production of 33 scientific papers, grouped as follows:

- ❖ Scientific papers in the nomenclature specialty - 32 pcs., including:
 - Dissertation paper for PhD educational and scientific degree - 1 pc.
 - Scientific papers on the topic of the dissertation paper - 4 pcs.
 - Published book on the topic of the dissertation paper - 1 pc.
 - Publications in peer-reviewed and referenced scientific journals - 17 pcs
 - Publications in proceedings from scientific conferences - 9 pcs.

I allow myself not to review the scientific work: Angelushev, I., At. Vuchkov, 2015. "Basic exterior dimensions in male specimens of the breed Bulgarian Tricolor Beagle", because its subject is not in this scientific specialty.

A total of **28 scientific papers** are subject to analysis for preparing the review.

The personal participation of Chief Assist.prof. Atanas Vuchkov, PhD in these 28 works is illustrated by the fact that in 6 works /21.4%/ he is sole, in 10 works /35.7%/ he is the first, in 10 works /35.7%/ he is the second, and in the other 2 works /7.2%/ he is the third and following author.

Chief Assist.prof. Atanas Vuchkov, PhD participates with two scientific papers in world and European congresses abroad, with 12 scientific papers and 1 poster at scientific forums with international participation in Bulgaria.

The presented scientific production, with which the candidate participates in the competition, covers a wide range of research in the field of sheep and goat breeding. The topicality and depth of his scientific works are impressive. Modern

scientific approaches to research are applied. The obtained results have scientific and practical significance. The significance of the obtained results is proven by their publication in renowned scientific journals in the country and abroad, as well as by their citation in indexed and referenced scientific journals. I give high overall assessment for the qualities and significance of the scientific production of Chief Assist.prof. Atanas Vuchkov, PhD.

After a thorough review of the submitted documents and materials on the competition, as well as the reference-declaration, prepared by Chief Assist.prof. Atanas Vuchkov, PhD, I found that the minimum national requirements for holding the academic position "Associate Professor" in field of higher education 6. Agricultural Sciences and Veterinary Medicine and professional area 6.3. Animal Husbandry, according to Art. 2b of the Law on development of academic staff in the Republic of Bulgaria, as well as the requirements pursuant to the Rules for implementation of the Law on development of academic staff at the Agricultural University have been complied with.

1. By group of indicators "A" - Successfully defended dissertation paper for awarding PhD educational and scientific degree in 2009 - **50 points**.

2. By group of indicators "C" - Habilitation paper-monograph or scientific publications (not less than 10 pcs.) in publications referenced and indexed in world-renowned databases with scientific information. A total of 10 scientific works have been presented, with which the candidate forms **216 points**, with a requirement of **100 points**.

3. By group of indicators "D"

- A published book based on a defended dissertation paper for awarding PhD educational and scientific degree has been presented, with which forms **40 points**.

- 6 articles and reports published in scientific journals, referenced and indexed in world-renowned databases with scientific information have been presented, with which the candidate forms **150 points**.

- 10 articles and reports published in unreferenced journals with scientific review, which form **36.32 points**.

The total number of points on indicator "D" is **226.32 points**, with minimum requirements of **200 points**.

4. By group of indicators "E" – 4 citations (of 4 scientific papers) in scientific journals, referenced and indexed in world-renowned databases with scientific information have been presented, which form **50 points**, with a minimum requirement of **50 points**.

5. By group of indicators "F" - 2 international and 2 educational projects, which form **70 points**, and the "Guidebook for Seminars in Sheep and Goat Breeding" which form **10 point**. The total number of points on indicator "F" is **80**.

The total amount of the scientometric indicators for "Associate Professor" formed by the candidate is **632.32 points**, with a requirement of **400 points**.

Analyzing the scientific production and project activity of the candidate in the competition, I could indicate the following main directions in his research activity:

- Study of Bulgarian native breeds of goats - exterior features, genetic diversity, coagulation ability of milk, economic systems of breeding, etc., with a view to their conservation as a genetic resource for goat breeding in Bulgaria.
- Study of the growth abilities, meat-producing qualities, chemical and fatty acid composition of meat from white and splotch-faced Maritsa lambs.
- Study on the meat productivity of local lambs and kids reared in mountain areas with a view to obtaining light slaughter carcasses under the (S)EUROP system.
- Study of fertility and milk yield in sheep of the breeds White Maritsa sheep and Splotch-faced Maritsa sheep.
- Opportunities for early diagnostics of pregnancy in sheep.

Chief Assist.prof. Atanas Vuchkov, PhD participates in the management and implementation of 6 research projects, 2 of which are international, as well as 2 educational projects. From the presented information it is evident that he works in up-to-date research areas and problems, demonstrating skills and talents for leading and conducting research, development and implementation of projects, including ones with external funding.

Chief Assist.prof. Atanas Vuchkov, PhD has 15 years of teaching experience,

in addition to the 3-year period of full-time PhD studies. He conducts lectures and practical seminars in the following subjects: Sheep and goat breeding, Animal husbandry, Mountain animal husbandry, Application of shepherd dogs and Cynology. The candidate is a co-author of the "Guidebook for Seminars in Sheep and Goat Breeding". He actively participates in the club, experimental and research activities, carried out on the territory of the experimental base of the Agricultural University, as well as on a number of sheep and goat farms and sites in the country. During the years of his teaching activity he met and exceeded the annual rates for classroom and extracurricular employment adopted at the Agricultural University. He is the scientific supervisor of 11 successfully defended graduate students. Currently, under his methodological guidance, 4 more students are preparing their diploma papers. Feedback from students and teachers about the teaching, scientific supervision of graduate students and the competence in carrying out this activity by Chief Assist.prof. Atanas Vuchkov, PhD are positive. Based on the above and on personal impressions, I hereby give high positive assessment of the teaching experience and the degree of preparedness of the candidate for holding the academic position "Associate Professor".

Based on the overall scientific production, with which Chief Assist.prof. Atanas Vuchkov, PhD participates in the competition, and the prepared reference a number of contributions could be outlined - original, scientific, methodological and scientific-applied. I dare to point out some of them:

I. ORIGINAL CONTRIBUTIONS

- The exterior has been studied and described in detail, and a generalized analysis of the variations in the colour of the coat, productivity and individual coagulation ability of the milk of two indigenous goat breeds in Bulgaria - Kalofer long-haired goat and Bulgarian twisted-horn long-haired goat (**I.3., I.4., I.6., I.9., III.7., IV.3., IV.4., IV.5., IV.7.**).

- New original scientific information has been obtained on the results of the slaughter analysis, the chemical and fatty acid composition of the meat of suckling lambs of the White Maritsa and Splotch-faced Maritsa breeds, reared under organic production conditions **(I.1., I.2. and III.1.)**.

II. METHODOLOGICAL CONTRIBUTION

- The possible causes of deviations in the accuracy of milk production in the AC method for control of milk productivity in sheep **(I.8.)** have been studied

- A methodology for calculating Clark of energy distribution (CED) and Clark protein transformation (CPT) in sheep and goat breeding has been proposed and applied. Through scientific research, the net utilization of energy and protein along the chain "feed - pure boneless meat" in goats of the breeds Kalofer long-haired and Bulgarian twisted-horn long-haired goat **(III.5., III.6.)** has been calculated.

III. SCIENTIFIC CONTRIBUTION

- In-depth studies have been carried out on the growth abilities, fattening and meat-producing qualities of lambs, as well as on the main productive traits of sheep of the White Maritsa and Splotch-faced Maritsa sheep breeds **(I.1., I.2., I.7., II.1., III.1., IV.1. IV.6.)**.

- The meat-producing and slaughter qualities of kids from the breeds Kalofer long-haired and Bulgarian twisted-horn long-haired goats at weaning at the age of 90 days, the so-called "suckling goats" **(III.4.)** have been studied.

- The dynamics in the weight development of Karakachan lambs from birth to weaning at 90 days of age has been established **(IV.10.)**, as well as the growth potential after weaning of white Maritsa lambs **(I.7.)**.

- The biological possibilities regarding the fertility and milk yield of one-year-old White Maritsa sheep, fertilized as yearling ewes, have been studied **(I. 5.)**.

IV. APPLIED CONTRIBUTION

- The Kalofer long-haired goat and the Bulgarian twisted-horn long-haired goat have been described and standardized. On this basis, breeding strategies for the conservation of these two valuable genetic resources in the national goat breeding have been implemented in practice. Selection programs for breeding activities with both breeds have been prepared and successfully defended before the Ministry of Agriculture, Food and Forests **(II.3.)**.

- A description of the production technology has been made, as well as a biochemical specification of "Tulum sheep-milk cheese", produced by traditional technology from milk of Karakachan sheep **(I.10. and IV.9.)**.

I value highly the importance of the contributions to science and practice. The presented scientific production and the contributions made through it are grounds to conclude that Chief Assist.prof. Atanas Vuchkov, PhD has a clearly outlined profile in his research work.

Regarding the materials presented in the competition and to the candidate, I allow myself to make the following remarks and recommendations:

1. In the materials on the competition no works published in scientific journals with impact factor or impact rank have been presented. This, of course, is not mandatory according to the Law on development of academic staff in the Republic of Bulgaria and in no way adversely affects the compliance with the minimum national requirements on this competition. I would like to recommend to the candidate, in his future publishing activity, to focus on similar journals, which would increase the level of popularization of his research and their citation level.

2. The reference for citations of the scientific works with the participation of the Chief Assist.prof. Atanas Vuchkov, PhD, only 4 citations are mentioned. These are in renowned magazines and have the required minimum number of points. In my opinion, there is a further large number of citations that are not reflected in the reference.

The remarks made are of a recommendatory nature and do not diminish the qualities and significance of the production, with which Chief Assist.prof. Atanas Vuchkov, PhD, participates in the competition.

My personal impressions from the candidate in the competition are excellent. He is an established lecturer and researcher, with high level of recognition and authority in academic and scientific circles. He demonstrates ethics and tolerance in his work with students, teachers and colleagues in practice. He has the necessary professional and personal qualities to hold the academic position "Associate Professor".

CONCLUSION

- Based on the analysis of the educational, scientific and scientific-applied activity of the candidate, I do believe that Chief Assist.prof. Atanas Spasov Vuchkov, PhD, meets the requirements of the Law on development of academic staff in the Republic of Bulgaria and the Rules for its application at the Agricultural University - Plovdiv. The reason for this are the results from the in-depth and analytical review of the materials presented in the competition, as well as my personal impressions from him as a teacher, researcher and expert in sheep and goat breeding. All this gives me reason to evaluate **POSITIVELY** his overall activity.

I propose to the esteemed Scientific Jury to vote positively, and the Faculty Council of the Faculty of Agronomy at the Agricultural University - Plovdiv to elect Chief Assist.prof. Atanas Spasov Vuchkov at the academic position **"Associate Professor"** in the scientific specialty **"Sheep and goat breeding"**.

Date: 11.03. 2021

town of Plovdiv

REVIEWER:.....

(prof. Radoslav Slavov, DS