

OPINION

on the materials for participation in a competition for the academic position "associate professor", field of higher education 6. "Agrarian sciences and veterinary medicine", 6.3. Professional direction "Livestock breeding", Scientific specialization "Special branches" (bees and silkworms) in the discipline "Beekeeping" for the needs of the Faculty of Agriculture, announced by decision of the AC of LTU in the State Gazette, no. 102 of 08.12.2023 with a term of two months and procedure code: AGR – AsP – 1123 – 120.

Applicant for participation in the competition: Senior Assistant Dr. Tsvetelina Alipieva Nikolova

Prepared the statement: Prof. Dr. Panomir Ivanov Tzenov, Agricultural Academy, Scientific Center on Sericulture - Vratsa, Higher Education Region 6. Agricultural Sciences and Veterinary Medicine, 6.3. Professional direction "Livestock breeding", Scientific specialty "Special branches" (silkworms).

Brief biographical details of the applicant. Tsvetelina Alipieva Nikolova was born on January 22nd, 1978 in the city of Sofia. She graduated from Forestry University, Sofia in 2005, majoring in agronomy. Since 2008, she has been an assistant at the Forestry University, Faculty of Agronomy, Department of "Perennial Plantations and Horticulture". From 02.10.2019, she became main assistant, PhD at Forestry University, Faculty of Agronomy, Department of Plant Protection. She speaks Russian and English. My personal impressions of the work of senior assistant Dr. Ts. Nikolova are good.

Compliance of the applicant's submitted documents and materials with the requirements according to the Regulations for RAS at LTU. The submitted documents and materials of the applicant correspond to the requirements according to the Regulations for RAS at LTU.

Assessment of the candidate's educational and teaching activities. Main assistant Dr. Ts. Nikolova gives lectures and exercises on the disciplines of Beekeeping, Gardening, Pollination of honey plants, Honey plants and bee grazing and Soil health. Leads exercises in the disciplines Fundamentals of Animal Husbandry and Private Animal Husbandry. A good assessment could be given for the candidate's educational and teaching activities.

Evaluation of the candidate's scientific, applied scientific and publication activity.

Participation in scientific, scientific-applied and educational projects. Main assistant Dr. Ts. Nikolova participated in the implementation of 8 national scientific or educational projects, as well as in one international scientific and educational project. The candidate's participation in such type and number of projects is a certificate of active scientific-applied and educational activity.



Characteristics of published scientific results. Habilitation work - monograph on "Honey plants and bee grazing" with author Ts. Nikolova is presented. For her participation in the competition main assistant Dr. Ts. Nikolova presented a total of 19 scientific papers, including 7 publications in foreign refereed scientific journals, 7 publications in Bulgarian refereed scientific journals and 5 publications in non-refereed scientific journals. Scientific papers are written at a good scientific level. With the participation of Ts. Nikolova, two manuals for exercises were published, respectively on beekeeping and sericulture.

Reflection of the candidate's scientific activity in the literature (citability). The candidate has submitted 4 citations of her scientific works.

Contributions to the candidate's works (scientific, scientific-applied, applied). The more important contributions in the presented by main assistant Dr. Ts. Nikolova scientific works are the following:

I. Contributions of original character - A monograph with strictly methodical, fundamental and applied contributions is presented, which includes general information about the honey-bearing vegetation with a view to the successful planning and organization of beekeeping activities in accordance with the seasonal dynamics and creating conditions for a long and diverse bee grazing.

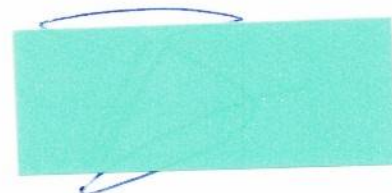
- It has been proven that in young cherry plantations the sugar content in the nectar is higher compared to older ones, while in apple plantations the opposite trend has been established.
- It was found that the trees grafted on the M 9 rootstock were lower in sugar content of the nectar, compared to those grafted on the MM 106.
- It has been shown that bee colonies raised in a Langstroth Rut hive system have the highest annual egg-laying activity for the three beekeeping seasons compared to Dadan Blatt 12-frame, Dadan Blatt 10-frame hives, Roger Delon (RD) and Farrar.
- The positive effect of artificial food with added extract of *Origanum vulgare* L. on a four-way hybrid of *Bombyx mori* L. by showing better growth and development was confirmed.
- High levels of the heavy metals lead and zinc in feed have been shown to result in reduced cocoon weight, shell weight, length and weight of silkworm thread, suppress vitality, extend the length of the larval period, and reduce cocoon yield.

II. Contributions of a confirmatory nature.

- The leading factors for the "Empty Beehive Syndrome" have been traced and the development of the problem at home and abroad has been analyzed.
- It has been confirmed that silkworms *Bombyx mori* L. perceive well artificial food, with added extract of *Tribulus terrestris* L.

Evaluation of the candidate's personal contribution. Of the scientific works presented in the competition, 8 are independent, 4 are with one co-author, 4 are with two co-authors and 3 are with more co-authors, which gives me reason to highly value the candidate's personal contribution.

Critical notes and recommendations. I recommend to the candidate main assistant Dr. Ts. Nikolova in the future to focus his scientific research in narrower areas of beekeeping and sericulture, which would allow extensive research and creation of new scientific products.



Personal impressions. I know the work of main assistant Dr. Ts. Nikolova almost from the beginning of her appointment as an assistant at LTU. She has always been an ambitious and serious scientist, successfully coping with challenges.

Conclusion. Bearing in mind the compliance of the candidate's submitted documents and materials with those required according to the Regulations on RAS at LTU, the good assessment of her educational and teaching activities, the participation in scientific, scientific-applied and educational projects, the presented scientific works, the sufficient contributions in the scientific works of the candidate, which are the result of a significant personal contribution, I propose the candidate main assistant professor Dr. Tsvetelina Alipieva Nikolova to take the academic position "associate professor", area of higher education 6. "Agrarian sciences and veterinary medicine", 6.3. Professional direction "Livestock breeding", Scientific specialty "Special branches" (bees and silkworms) in the discipline "Beekeeping" for the needs of the Faculty of Agronomy of LTU.

Prepared the opinion:



/Prof. Dr. Panomir Tzenov/

The opinion was submitted on: