АГРАРЕН УНИВЕРСИТЕТ
гр. Пловдив
Вх. № 10Р6 Дело № 83
Получено на 13.11.2025

OPINION

regarding the competition for the academic position of "Associate Professor" in the field of Higher Education 6. Agricultural Sciences and Veterinary Medicine, professional field 6.2. Plant Protection, scientific specialty "Plant Protection (Entomology)", announced in the State Gazette, issue No. 65 of 08.08.2025.

Candidate: Chief Assistant Dr. Pavlin Emilov Vasilev, Department of Entomology, Faculty of Plant Protection and Agroecology, Agricultural University – Plovdiv

Prepared by: Assoc. Prof. Dr. Nedyalka Georgieva Palagacheva, appointed pursuant to Order No. RD 16-991/07.10.2025 of the Rector of the Agricultural University – Plovdiv, as a member of the Scientific Jury.

1. Brief presentation of the candidate

Chief Assistant Dr. Pavlin Vasilev graduated from the Agricultural University – Plovdiv in 2011 with a degree in Plant Protection, and in 2012 obtained a Master's degree in the same specialty.

In 2016, he defended his doctoral thesis on the topic "Aphids (Hemiptera: Aphididae) on Stone Fruit Species – Distribution, Harmful Activity and Control", and was awarded the educational and scientific degree "Doctor" in Plant Protection.

During the period 2016–2018, he worked as an agronomist at Agronom Holding Ltd. Since January 2019, he has been appointed as an Assistant Professor at the Department of Entomology of the Agricultural University – Plovdiv, and in December of the same year he was promoted to the academic position of Chief Assistant Professor, which he holds to the present day.

Dr. Vasilev has obtained an additional professional qualification in "Economics and Foreign Trade in Agricultural Products" from the Free Faculty of the Agricultural University, as well as a certificate as an appraiser of agricultural land and improvements.

He is proficient in Greek, Russian, and English, and possesses excellent computer skills.

He has completed three Erasmus+ mobility programs for training purposes.

Dr. Vasilev is also a member of the working group responsible for developing the "Guidelines for the Implementation of Control Measures against the Flatheaded Root Borer (*Capnodis tenebrionis* L.) on Woody Fruit and Ornamental Species of the Family Rosaceae in the Territory of the Republic of Bulgaria."

2. General Description of the Scientific Output

In the competition for the academic position of Associate Professor, Chief Assistant Dr. Pavlin Vasilev participates with a total scientific output of 25 publications, grouped as follows:

Scientific publications in the field of the designated specialty – 25, of which:
Publications related to the doctoral dissertation – 3 (not subject to evaluation);
Publications in journals with Impact Factor (IF) – 2;
Publications in peer-reviewed and refereed scientific journals – 16;
Popular science publications – 2.

Of the 22 publications subject to analysis, Dr. Pavlin Vasilev's individual contribution is distributed as follows: 3 as sole author; 8 as first author; 8 as second author; and 3 as third or subsequent author.

The candidate meets the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria and fulfills the minimum number of points required for holding the academic position of Associate Professor in the field of Higher Education 6. Agricultural Sciences and Veterinary Medicine, professional field 6.2. Plant Protection.

3. Teaching Activity

Chief Assistant Dr. Pavlin Vasilev has a teaching experience of 6 years, 8 months, and 4 days.

His direct teaching workload for the period 2020/2021 – 2024/2025 amounts to 3,147.8 hours, with the annual load varying between 532 and 735.3 hours.

Dr. Vasilev conducts practical exercises in the specialty Plant Protection for students in both educational and qualification degrees – Bachelor and Master (full-time and part-time study forms) – in the following disciplines:

General Entomology, Agricultural Crop Pests, Forecasting and Pest Warning Systems, Biological Plant Protection, and Plant Quarantine.

In addition to his direct teaching responsibilities, Dr. Vasilev supervises diploma theses, having guided 22 undergraduate and master's students to completion so far.

4. Research Activity

The main research areas of Chief Assistant Dr. Pavlin Vasilev include:

- Efficacy of new plant protection products against aphids (Hemiptera: Aphididae) and other pests;
- Influence of immunostimulants and foliar fertilizers on aphids (Hemiptera: Aphididae) in fruit crops;
- Species composition, population density, and distribution of aphids (Hemiptera: Aphididae) and aphidophagous predators in different agrocenoses in Bulgaria;
- Monitoring and control of fruit moths in stone fruit species;
- Entomofauna and the effect of different mulching types in potato crops (*Solanum tuberosum* L.) in the Plovdiv region;
- Monitoring of apple pests (*Malus domestica* Borkh.) in the Plovdiv region.

Scientific Contributions

- The species composition of aphids and their entomophagous predators on stone fruit crops in the Plovdiv region has been identified. Four aphid species were found on plum (*Prunus domestica* L.) and six on peach (*Prunus persica* Batsch). A total of 18 species of aphidophagous predators were identified within aphid colonies, contributing to the reduction of their populations at the beginning and end of the vegetation period.
- The species composition and distribution of aphids on stone fruit species in Bulgaria have been studied. Eight aphid species were identified on peach (*Prunus persica* Batsch), among which the green peach aphid (*Myzus persicae* Sulzer) and the peach - clematis aphid (*Myzus varians* Davidson) were the most economically significant. Nine aphid species were found on plum and cherry plum, with mealy plum aphid (*Hyalopterus pruni* Geoffroy) and leaf-curling plum aphid (*Brachycaudus helichrysi* Kaltenbach) dominating on plum and hop aphid (*Phorodon humuli*) and leaf-

curling plum aphid (*Brachycaudus helichrysi* Kaltenbach) predominating on cherry plum (*Prunus cerasifera* Ehrh.).

- In the Plovdiv region, four aphid species were recorded on nine apple cultivars (*Malus domestica* Borkh.). The most widespread were the rosy apple aphid (*Dysaphis plantaginea* Passerini) and the spirea aphid (*Aphis spiraecola* Patch). Differences in cultivar susceptibility to infestation were observed.
- For the first time in Bulgaria, the rice root aphid *(Rhopalosiphum rufiabdominale* Sasaki, 1899) was recorded on wheat.
- The entomofauna of potato crops (*Solanum tuberosum* L.) in the Plovdiv region was studied, identifying the predatory bug *Perillus bioculatus* (Say, 1832) as a natural pest of the eggs, larvae, and adults of the Colorado potato beetle (*Leptinotarsa decemlineata* Say).

Scientific and Applied Contributions

- The efficacy of biological insecticides against aphids (Hemiptera: Aphididae) and the Colorado potato beetle (*Leptinotarsa decemlineata* Say) was evaluated under laboratory conditions. It was established that, when applied at optimal doses, bioinsecticides provide effective control of both aphids and the larvae and adults of *L. decemlineata.*
- Synthetic, biological, and botanical insecticides were tested for controlling the mealy plum aphid (*Hyalopterus pruni* Geoffroy), the green citrus aphid (*Aphis spiraecola* Patch), and the rose soft scale (*Rhodococcus perornatus* Cockerell & Parrott). Results showed that chemical insecticides were highly effective even at the lowest approved dose. The biological product Naturalis and botanical insecticides also demonstrated high efficacy and are suitable for integration into integrated pest management (IPM) systems.
- The effect of immunostimulants and foliar fertilizers on aphid infestation in fruit crops was studied under both laboratory and field conditions. It was found that the use of natural immunostimulants rich in silicon reduces the degree of infestation and the need for chemical treatments.
- The use of synthetic sex pheromones and dispensers for the plum fruit moth (*Grapholita funebrana* Treitschke), the oriental fruit moth (*Grapholita molesta* Busck), and the peach twig borer (*Anarsia lineatella* Zeller) reduces fruit damage and limits the number of chemical applications required.
- The forecast model RIMpro–Cydia 3, applied to the codling moth (*Cydia pomonella* Linnaeus), demonstrated high effectiveness against the first generation of the pest. Based on the obtained results, recommendations were developed for monitoring and controlling the second generation.

Confirmatory Contributions

- The entomofauna and the influence of various mulching types on potato crops (*Solanum tuberosum* L.) in the Plovdiv region were studied. It was found that the population densities of the Colorado potato beetle (*Leptinotarsa decemlineata* Say), the green peach aphid (*Myzus persicae* Sulzer), and the potato aphid (*Aulacorthum solani* Kaltenbach) were significantly lower in plots mulched with straw and green mulch (alfalfa) compared to non-mulched areas.

Citations and Referencing of Scientific Output

The total number of citations presented is 18, of which:

14 itations are in scientific journals indexed and abstracted in internationally recognized databases; 4 citations are in non-indexed but peer-reviewed scientific journals.

Participation in Scientific Projects

Dr. Pavlin Vasilev participates in the National Program "Young Scientists and Postdoctoral Researchers", as well as as a member of research teams in three international projects focused on sustainable agriculture and the implementation of environmentally friendly practices.

5. Remarks and Recommendations

I have no remarks regarding the research, teaching, or project activities of the candidate.

I would recommend that in his future work, Chief Assistant Dr. Vasilev focuses on publishing the results of his studies in scientific journals indexed in databases with IF and SJR, which will contribute to a wider visibility and international recognition of his scientific achievements.

6. Conclusion

Based on the submitted documents and the analysis of the scientific, applied, and pedagogical activities of the candidate, I consider that Chief Assistant Dr. Pavlin Vasilev meets the requirements of the Law for the Development of the Academic Staff in the Republic of Bulgaria (LDASRB), its Implementing Regulations, and the Rules of the Agricultural University – Plovdiv for holding the academic position of Associate Professor in the scientific specialty Plant Protection (Entomology).

All the above gives me grounds to positively evaluate his overall academic activity.

I therefore take the liberty to recommend to the esteemed Scientific Jury to also vote in favor, and to the Faculty Council of the Faculty of Plant Protection and Agroecology at the Agricultural University – Plovdiv to elect **Chief Assistant Dr. Pavlin Vasilev** as **Associate Professor** in the scientific specialty **Plant Protection (Entomology).**

Date: November 11, 2025
Plovdiv

Prepared by:
(Assoc. Prof. Dr. Nedyalka Palagacheva)