

## REVIEW

regarding the competition for "associate professor" in the scientific major "Pig Breeding", announced in the State Gazette No. 65 of 08.08.2025 with candidate Chief Assist. Prof. Ivelina Asenova Zapryanova, PhD, from the Agricultural University - Plovdiv, Department of Animal Sciences.

**Reviewer:** Prof. Maya Mitkova Ignatova, PhD, Institute of Animal Science-Kostinbrod, higher education area 6. Agricultural Sciences and Veterinary Medicine, professional field 6.3. Animal Husbandry, scientific major "Animal Nutrition and Feed Technology", appointed as a member of the Scientific Jury by order No. RD 16-1037/10.10.2025 of the Rector of the Agricultural University.

### 1. General data about the career and thematic development of the candidate.

Chief Assist. Prof. Dr. Ivelina Asenova Zapryanova graduated from the Trakia University - Stara Zagora in 1997. In 2012, she successfully defended her PhD thesis entitled "Effect of the use of plant extracts on the productive traits of pigs" and obtained the educational and scientific degree "Doctor". Chief Assist. Prof. Zapryanova began working as a zootechnician in the Department of Animal Sciences at the Agricultural University - Plovdiv in 1997. In 2000, she was appointed as an assistant professor, and in 2003 as a senior assistant professor in the same department. From 2007 to date, she has been a chief assistant professor.

### 2. General description of the submitted materials.

In the competition for "associate professor", Chief Assistant Professor Dr. Ivelina Zapryanova participated with a total of 25 works, grouped as follows:

- ❖ *Scientific publications according to the nomenclature major - 25 pcs., of which:*
  - *Publications with IF/SJR - four pcs.;*

- Publications in peer-reviewed scientific journals - 20 pcs;

- Publications in conference proceedings - five psc;

The personal participation of Chief Assist. Prof. Zapryanova in the presented works is illustrated by the fact that five (20%) are independent, in 10 (40%) she is the first, in nine (36%) - the second, and in one - the fourth author. 25 papers are subject to analysis for the review. In addition to the publications in the competition, Chief Assist. Prof. Zapryanova presented the results of her research at 12 scientific forums in Bulgaria and abroad, delivering three reports and 14 posters.

**Accomplishment of the minimum national requirements under Art. 2b (2, 3 and 5) of the Law for the Development of the Academic Staff of the Republic of Bulgaria, and Annex to Art. 1a of the Rules for Implementation of Law for the Development of the Academic Staff of the Republic of Bulgaria /number of points by indicators/.**

Groups of indicators	Indicator	Minimal requirements	Accomplishment
A	Doctoral thesis	50	50
V	Habilitation – scientific papers (not less than 10) in journals that are indexed in the world data bases with scientific information	100	238.3
G	G7. Papers and reports published in journals indexed in world databases with scientific information	200	210
	G8. Papers and reports published in journals without peer review or included in collective volumes		28,3
D	Citations or reviews in journals that are indexed in world databases or monographs and collective volumes	50	120
	<b>Total number of points</b>	<b>400</b>	<b>646.6</b>



The data in the table shows that Chief Assist. Prof. Ivelina Zapryanova exceeds the minimum national requirements in all groups of indicators for holding the academic position of "associate professor" with a total number of points of 646.6 out of the required 400 pts.

**3. Main areas of research work of the candidate. Demonstrated skills for leading scientific research (project management, external funding attracted, etc.).**

The research activities of Chief Assist. Prof. Ivelina Zapryanova include studies in the field of pig breeding:

- studies of reproductive traits;
- studies of growth performance;
- studies of rearing conditions;
- studies of the possibilities of using alternative sources of biologically active substances in nutrition;
- studies of the behavior of pigs through the use of new technical means of observation.

The topic of scientific research is relevant. The research is profound. The methods used are modern. These are prerequisites determining the obtaining of accurate and convincing results. Chief Assist. Prof. Ivelina Zapryanova is the principal investigator of a scientific project entitled "Possibilities for using unmanned aerial vehicles in assessing the behavior of pigs".

**4. Assessment of the candidate's pedagogical activity. Their role in the training of young scientific personnel.**

The candidate in the competition for associate professor, Chief Assist. Prof. Ivelina Zapryanova, has a long teaching experience, initially as an assistant professor, senior assistant professor and since 2007, chief assistant professor. She delivers lecture courses in the disciplines Animal Husbandry, Pig Breeding, Technology of Meat and Meat

Products, Biological Foundations of Pig Breeding, Pig Breeding Technologies and Biological Foundations of Animal Husbandry in the Bachelor's Degree Program and Fundamentals of Pig Breeding, Breeding Programs in Pig Breeding, Biotechnology of Reproduction in Pig Breeding and Conservation of Genetic Resources in Pig Breeding in the Master's Degree Program. She participates in the development of seven curricula for the Bachelor's Degree Program and six curricula for the Master's Degree Program. Ch. assist. prof. Zapryanova is the scientific supervisor of three successfully defended graduates in the Bachelor's and five in the Master's degree. My assessment of the teaching activities of Chief Assist. Prof. Ivelina Zapryanova is high and in my opinion the candidate is fully prepared to occupy the academic position in the competition.

**5. Significance of the obtained results, proven by citations, publications in prestigious journals, awards, membership in international and national scientific bodies, etc.**

Chief Assist. Prof. Zapryanova has presented a reference for eight citations in scientific publications in journals, peer-reviewed and indexed in world databases with scientific information - six of them in Scopus and two in Web of Science. Two citations are in journals indexed with Q1, two - Q2 and one each in Q3 and Q4. Of the required 50 points under indicator D, Chief Assist. Prof. Zapryanova presents 120 pts., which significantly exceeds the required minimum.

**6. Significance of contributions to science and practice. Motivated answer to the question of the extent to which the candidate has a clearly outlined profile of scientific research work.**

In the scientific works of Chief Assist. Prof. Ivelina Zapryanova, a number of scientific and applied contributions both original and confirmatory have been made. The reference of the scientific contributions presented by the candidate is, in my opinion, quite extensive and reflects the conclusions from each publication separately. I could summarize the main contributions in the presented scientific works as follows:

- A comprehensive study of the reproductive abilities of purebred and hybrid pigs has been conducted (publications G11, G12, G13, G19, G20, G21, G22, G23, G24).



Changes in sperm production in boars depending on the breed and age of the animals have been established. It was found that Danish Landrace sires outperformed English Landrace sires in terms of volume and concentration. In both breeds, volume increased with age and reached maximum after 37 months of age, while concentration decreased with age.

The influence of the duration of the interval between sperm collections, the season, the concentration of sperm in the ejaculate, and the duration of storage on the quantitative and qualitative parameters of boar semen was studied.

It was found that the interval between individual sperm collections had a significant effect on the concentration of sperm, the percentage of agglutinated and dead sperm.

The influence of some factors (age of first insemination and conception, age of first farrowing, season of conception) on the fertility of sows has been established. It has been found that age (order of farrowing) and season of conception have a reliable influence on the number of piglets born. The smallest number of pigs per farrowing litter are found in sows inseminated in the summer, and the largest number of piglets are found in sows inseminated in the winter.

- The possibilities of using alternative sources of biologically active substances in pig nutrition have been studied (B10, D14, D15).

The effect of including plant additives, sources of biologically active substances, in compound feeds on growth performance, feed consumption and utilization and health status of growing pigs has been studied. It has been demonstrated that the addition of the plant preparations Sangrovit and VemoHerb to feed significantly increases the average daily gain and improves feed utilization in starter and grower pigs.

- Original data on the values of some biochemical, hematological and immunological blood parameters in boars were obtained (B7, B8, B9).

A trend of decreasing triglyceride, lipase, alkaline phosphatase values with advancing age was observed, while cholesterol, glucose, creatinine, ASAT, ALAT values increased.

It was found that immunological indicators were within the limits of physiological norms.

- A study of the microclimate was carried out and a hygienic and energy assessment of buildings for boars was made with a view to optimizing the breeding conditions (B5, B6).
- A study of the behavior of Mangalitsa pigs was conducted using unmanned aerial vehicles (B1, B2).
- An analysis of the state and trends in the development of pig farming in the country was conducted (G17, G18, G25, B3, B4).

The number of pigs and farms in which they are raised was established, as well as the change in these indicators over the years.

Information was obtained on the number of slaughterhouses and the slaughter pork produced, also in dynamics.

Particular attention has been paid to studying the population of pigs of the East Balkan pig breed.

#### **7. Critical remarks and recommendations.**

I have no critical remarks and recommendations for the candidate.

#### **8. Personal impressions and opinion of the reviewer.**

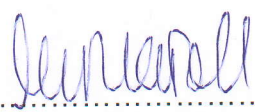
I know Chief Assist. Prof. Ivelina Zapryanova personally. I am familiar with her scientific activity over the years. In my opinion, Chief Assist. Prof. Zapryanova possesses qualities that describe her as a well-established scientist – thoroughness, purposefulness and precision in her work, and are a prerequisite for successful development in the future.

#### **CONCLUSION**

Based on the analysis of the candidate's pedagogical, scientific and research activities, I believe that Chief Assist. Prof. Ivelina Asenova Zapryanova, PhD meets the requirements of the LDASRB, the Rules for its implementation and the Rules of the Agricultural University for its implementation. This gives me reason to evaluate her overall activity POSITIVELY. I would like to propose that the esteemed Scientific Jury to also vote positively, and that the Faculty Council of the Faculty of Agronomy at the Agricultural

University - Plovdiv elect Chief Assist. Prof. Ivelina Asenova Zapryanova, PhD as an "associate professor" in the scientific major "Pig Breeding".

Date: 91.12.2025 r.

Reviewer: .....  
(Prof. Maya Ignatova, PhD)