#### OPINION



**About:** academic positions "professor" in higher education 6. Agricultural Sciences and Veterinary Medicine; professional field 6.1. Agricultural Sciences and veterinary medicine; scientific specialty "Crop production, "announced in the State Gazette. 93 / 26.11.2019. Candidate assoc. Prof. Dr. Hristophor Kirchev Kirchev

**Prepared opinion:** Prof. Dr. Hristina Georgieva Yancheva, Agricultural University of Plovdiv, higher education 6. Agricultural Sciences and Veterinary Medicine; professional field 6.1. Crop production; scientific specialty "Grasslands, fodder production" determined a member of the scientific jury, according to Order  $N_{\odot}$  RD16-17 / 14.01.2020 of the Rector of the Agricultural University, Plovdiv

### 1. General information about career and thematic development candidate

In the competition for academic positions, professor in "Crop production" the only candidate is assoc. prof. Hristofor Kirchev, who has submitted all necessary documents following the requirements of Act for the development of academic staff in the Republic of Bulgaria, its enforcement, and the Rules of the Agricultural University Plovdiv for its application.

Assoc. prof. ristofor Kirchev Kirchev graduated Higher Institute of Agriculture as "Master" in 1993 with qualification "agricultural engineer-grain producer." In 2002, after successfully passing a competition enters as an assistant in the Department of Crop production, where he gives his entire career. In 2006 he defended a dissertation and acquired educational and scientific degree "Doctor." Academic position professor received in 2012.

On arrival at the Department of Crop Production to date assoc. prof. H. Kirchev is constructed as a teacher and researcher by enhancing their skills through participation in short-term fellowships, seminars, and courses.

His academic work involves teaching crop disciplines in various disciplines of the Master's «Bachelor" and "Doctor."

He speaks excellent English, Russian, and Spanish.

# 2. Comparing the minimum national requirements by the results of the scientific activity of the candidate to acquire academic position "professor."

In this contest of "professor" assoc. Hristofor Kirchev has submitted documents following scientometric indicators set out in the Act for the development of academic staff in the Republic of Bulgaria, its Implementing Rules and the Rules of the Agricultural University - Plovdiv as follows:

Category A (min. Requirements of 50 points) - are presented materials for 50 points.

Category C (min. Requirements of 100 points) - is presented monograph corresponding to 100 points

Category D (min. Requirements of 200 points) - submitted materials meet 203.6 points.

Category D (min. Requirements of 100 points) - submitted materials meet 495 points.

Category E (min. Requirements of 100 points) - have presented documents 210, 2 points.

When necessary, 550 points applicant has submitted materials to 1058.8 points, exceeding the minimum national requirements almost twice.

#### 3. General description of the materials presented

In the competition for "professor" assoc. prof. Hristofor Kirchev involved with a total output of 132 scientific works:

- Studies covering scientometric national minimum requirements for acquiring educational and scientific degree "doctor" 9, are not subject to peer review.
- Studies are covering scientometric national minimum requirements for acquiring academic position "associate professor" 59 pieces, which are also not subject to peer review.

The works submitted for this contest are subject to peer review are:

- Monograph 1
- Articles and reports published in scientific journals referenced and indexed in world databases of scientific information 1.
- Articles and reports published in refereed journals no scientific peer review or published in edited collective volumes 44 pieces.

The applicant has co-authored two published university textbooks and number three university textbooks and seven popular science articles.

For the preparation of the review are analyzed, 46 number of scientific publications.

Personal participation of Assoc., Dr. Hristofor Kirchev, in those 46 labor, is illustrated by the fact that eight pcs. (17.4%)They are independent, in 13 pcs. (28.3%)It is first in 11 pcs. (23.9%)a second, and in the other 14 units (30.4%) was a third and subsequent author.

## 4. The main fields of research work of the candidate. Demonstrated skills or talents to guide the research (project management, attract external funding, etc.).

Long research of assoc. prof. Dr. Hristofor Kirchev is connected with studies on the biological and economic characteristics and some units of the technology of growing a variety of field crops, of which: triticale - 17 publications (37%); wheat - 11 publications (24%) and etc. In multiple experiments were followed phenological development plasticity and stability of the yield of different field crops and varieties depending on the agro-technical factors and agro-environmental conditions.

### 5. Evaluation of educational preparation and activity of the candidate. Its role in the training of young scientists

Associate Professor Kirchev is a teacher with 12 years of experience who is actively involved in the preparation of students of the three degrees - bachelor, master, and doctor. Over the past five years, the average annual lecture direct employment Assoc. Kirchev was 590.8 hours, which significantly exceeds the required yearly average caseload.

Assoc. prof. Hristofor Kirchev is the supervisor of 13 successfully defended graduate degrees in "Bachelor" and 10 in degree "Master." Head of three successful Ph.D. students. A significant contribution to the educational process is developed curricula, lectures, textbooks, which provide training to students. He has led a Bulgarian and foreign students lectures and exercises in full and part-time training in degree "Master" and degree "Bachelor." 6 developed curriculum in the subjects Polish production plant and grain production. He has participated in the development of training materials for distance learning.

# 6. The relevance of results, proven with citations, publications in prestigious journals, awards, membership in international and national scientific bodies, and others.

The majority of scientific papers published in Bulgarian and international specialized magazines like Bulgarian Journal of Agricultural Science, Journal of Environmental Protection and Ecology, Journal of Agricultural and Food Chemistry, etc. as well as in the national and international scientific conferences. The results of their research on the culture of triticale presented in a monograph.

Proof of the importance of research and recognition of the author in the scientific community has noticed the number of citations in publications in Bulgarian and foreign authors - 43, of which 15 in refereed journals in SCOPUS. Most of the papers of the applicant are referred to in international databases CAB Abstracts, making them accessible to a more significant number of users.

### 7. Importance of contributions to science and practice. Motivated answer the question to what extent the applicant has a distinct profile of research

As a result of research, results were obtained, which for the most part, represent scientifically and applied contributions that complement and expand scientific knowledge. Those offerings in the report of the candidate are too detailed, and therefore I allow myself to present the most important of them:

#### I. SCIENTIFIC CONTRIBUTIONS

1. The regression equations for different triticale are established that could be used for calculation of the theoretical grain yield and the addition to the extraction of each kilogram of imported nitrogen. Consideration is applying economic optimum nitrogen fertilization for different varieties of triticale. The results can be used to prepare a detailed financial analysis and establishment of economically

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- 2. It was found the plasticity and stability of yields realized from different varieties of triticale depending on the norms of nitrogen fertilization. Almost all varieties of triticale showed high ecological stability at the highest nitrogen rates of fertilization, except for Zariad variety. Rye triticale is more stable in grain yield than wheat. Variety Primula and Sonar manifest themselves as stable productivity.
- 3. There have been differences in inter-phase periods of the triticale varieties in terms of the Plovdiv and Chirpan. In all varieties of triticale in both studied areas, differences reported at the end of the tillering stage.
- 4. In experiments with two types of old wheat (spelled and kamut) is found that the vegetation period of (T. monococcum) is more extended by eight days and in kamut (T. turanicum) by three days of this in common wheat. The yield of grain in common wheat has been shown higher in comparison to the two types of ancient kinds of wheat. Nitrogen fertilization has little impact on unproven and mining in ancient grain.

#### II. SCIENTIFIC - APPLIED CONTRIBUTIONS

- 1. The field of triticale variety trials conducted in different agro-ecological conditions found that varieties of Color and Accord are highly productive in agroecological conditions of Dobrudga region, compared with those in Thrace.
- 2. In the field fertilizer experiments with triticale conducted in different agroenvironmental conditions, it found that high yields, regardless of the area, were obtained at a ratio of macronutrients N12P6K6.
- 3. Field variety trials with wheat conducted in three different environmental regions have been established that when growing wheat varieties in terms of Dobroudja highest yield of grain is derived from a variety Karat, followed by resort and Enola. In agroecological conditions of Thrace, tested wheat varieties are ranked in the following descending order of productivity Viara> Laska> Factor.
- 4. The autour found that at low nitrogen fertilization rates of durum wheat varieties exhibit evidence of differences in the use of nitrogen for the formation of grain yield. In a threefold increase in nitrogen rate, the varieties are catching up in productivity. It was found that with increasing nitrogen rate to 16 kg/da productivity and quality of wheat is increased. The further increase in nitrogen fertilizer rate was unjustified since no significant increase in yields and grain quality.

#### 8. Critical remarks and recommendations

I have no comments on the submitted materials. I recommend that the results of future research have to be published in journals referenced in SCOPUS and Web of Science.

9. Personal impressions

I know assoc. Hristofor Kirchev of his admission to the University. It owns professional and personal qualities such as skills for teamwork, tolerance, initiative, and ethics.

#### **CONCLUSION**

Based on the analysis of educational, scientific, and applied activities of the candidate, I think that assoc. H. Kirchev complies Act for the development of academic staff in the Republic of Bulgaria, its Implementing Rules and the Rules of the Agricultural University - Plovdiv. He presented sufficient scientific papers published in specialized Bulgarian and foreign journals that are sufficiently recognized and appreciated by the scientific community. The national scientometric indicators required for academic positions "Professor" are fulfilled. The majority of the presented scientific results have significant contributions to crop science and practice. Professionalism and quality of teaching are emphasized by a large number of Ph.D. students and graduates under his leadership.

All this allows me to positively evaluated its overall activity.

I propose to the respected scientific jury also voted positively and faculty council of the Faculty of Agronomy at the Agricultural University - Plovdiv to choose Assoc. Prof. Hristofor Kirchev Kirchev for "professor" in the scientific specialty "Crop production."

03.06.2020 Plovdiv

Prepared opinion: ......

/ Prof. Dr. Christina Yancheva /