

**The External Foreign Evaluator Report of a Fundamental Domain (DFI): Engineering sciences (Code RSI: 50) Domain of doctoral university studies: Code DSU\_D/M: 10 – Agronomy  
Doctoral School – Engineering of Plant and Animal Resources  
IOSUD - Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania” from Timișoara (IOSUD-USAMVBT)**

Report to Doctoral Domain Team Leader, Prof. Dr Camelia SAVA  
by

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Independent external foreign expert evaluation of the doctoral domain Agronomy of the Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania” from Timișoara (IOSUD-USAMVBT) was organized by ARACIS. After acceptance of a formal invitation to participate, Prof. Dr Carmo Monteiro has reviewed available documents in English and, with help of google translator, reviewed further documents and annexes that were originally prepared in Romanian language. Documents were made available by ARACIS via e-mail, via password-protected online access to a cloud server and also send by wetransfer. The evaluation was conducted in a hybrid format, with multiple online meetings via ARACIS and USAMVBT zoom platforms, with available simultaneous translation from Romanian to English and *vice versa*.

During period from 11-15.10.2021. a series of online meetings were organized for the entire evaluators group and for the doctoral domain evaluators group. Prof. Dr Camelia Sava was the head of the doctoral domain Agronomy external evaluator team, with Prof. Dr Carmo Monteiro as foreign evaluator member and Ms. Adriana Sebastiană Muscă as doctoral student member. In addition to the online meetings with the Banat's University (BU) representatives, the in person visit to review the infrastructure and available facilities was performed by Prof. Sava, and Prof. Carmo Monteiro accessed by the information available in the webpage of the BU, information provided by the heads of the laboratories and by a video sent by BU.

After the completion of the accreditation visit, Prof. Carmo Monteiro reviewed notes collected during the meetings, inclusive of comments, questions and answers of the colleagues participating in the meetings. She also reviewed the documents provided by the BU after the visit that provided clarifications to some raised issues. The report presented below is based on the information collected during the above listed activities, and is organized in the format following the List of Critical Indicators for Doctoral Study Domains as advised by the ARACIS visit coordinator.

**INDICATOR A.2.1.1**



Thorough review and evaluation was conducted during preparation and visit to the Banat's University of the following: available self-report (Internal evaluation report) of the DD *Agronomy* as well as applicable annexes, meetings with respective University and Domain contact personnel, and University webpage and images from research laboratories. The opinion of external evaluator is that the venues and the material equipment available to the doctoral school enable the research activities in the evaluated domain to be carried out, in line with the assumed mission and objectives (computers, specific software, equipment, laboratory equipment, library, access to international databases etc.). The research infrastructure and the provision of research services are presented to the public through a specific platform (online descriptions of the research centers). The research centers are used in multidisciplinary environment, and by multiple doctoral study domains. The doctoral students from the *Agronomy* domain have access to the equipment and infrastructure in the research centers, and are adequately trained and monitored during their activities in the respective laboratories/facilities/field experiments. Prof. Carmo Monteiro through the online meetings with the representatives of the above mentioned infrastructures and facilities as well as with exchange of opinions with Prof. Camelia Sava got information about the several laboratories, fields for crop experiments and other facilities (computers, specific software, equipment, library, access to international databases etc.) for the agronomic research. The research infrastructure is updated according to the current research requirements and provides excellent environment for doctoral students to develop and conclude their research in the different topics of the doctoral domain in agronomy.

During systematic review of the documentation made available by the reviewed institution (Banat's University), as well as interviews and images from research laboratories, we can conclude that the Banat's University has in the period from 2015-2020 excellent conditions for the research since the research infrastructure described was successfully purchased and developed within the past 5 years.

Students of the *Agronomy* doctoral program appear fully integrated in the work of the research centers and respective laboratories and in field experiments (when was the case). The availability of venues and the material equipment is well provided, and students appear to use these facilities actively in the course of their respective PhD studies, of course, depending on their research topic. They are provided also with adequate training in the laboratory safety, hygiene and operation of the equipment.

***The indicator is fulfilled.***

**INDICATOR A.3.1.1**

The evaluation and review of the provided documents, annexes, web pages, and information collected during the online meetings strongly supports the fulfillment of the critical indicators applicable to the domain of *Agronomy* doctoral studies. Doctoral thesis advisors within agronomy domain are 19 (listed in the Annexes A.3.1.1-a, b and c). 63.15% of the listed advisors meet the minimum standards of the National Council for Attestation of University Degrees, Diplomas and Certificates (CNATDCU) in force at the time when the evaluation is carried out, which standards are required and mandatory for obtaining the enabling certification. Also, five of the 19 active doctoral





supervisors obtained the qualification certificate and the quality of doctoral supervisor in the last five years.

***The indicator is fulfilled***

INDICATOR A.3.1.2

All PhD. supervisors in the field of agronomy are full-time teachers at BU with an employment contract for an indefinite period with extensive experience in the research addressed area. (Annex A.3.1.2). The fulfillment of these requirements for the teachers of this doctoral domain (stability and qualification) are an enormous advantage and credibility for the doctoral study in *Agronomy* domain.

***The indicator is fulfilled***

INDICATOR A.3.1.3

The common disciplines of the doctoral training program are taught by specialized teachers with expertise in the field and the specialized disciplines are taught by the supervisors (Annexes A.3.1.3 FD, A.3.1.3-a, b, c, d, e, f, g).

***The indicator is fulfilled***

INDICATOR A.3.1.4

Regarding the 19 doctoral supervisors in the domain of *Agronomy* none coordinates more than 8 doctoral students during their doctoral studies. In the online meeting the PhD students reported a high level of satisfaction with their supervisors.

***The indicator is fulfilled***

INDICATOR A.3.2.1

Prof. Carmo Monteiro has conducted the review of the Annexes A.3.2.1a\_ and confirms that all supervisors listed in the internal report (for the period of 2015-2020) have satisfied the requirements of at least 50% of the doctoral supervisors in the field subject to evaluation present at least 5 publications indexed to the Web of Science - or ERIH-indexed publications in magazines of impact, or other achievements of relevant significance for the domain of agronomy. The listed achievements of the doctoral advisors also include international-level contributions that indicate progress in scientific research, development and innovation in the field of agronomy. The review of the Annexes A.3.2.1-b, c, d, e, f, g) provided also evidence about international awareness of the listed doctoral advisors/supervisors in the area of *Agronomy* within the past five years.

***The indicator is fulfilled***

INDICATOR A.3.2.2

The review of the Annexes A.3.2.2.-a, b showed that 68.4% of the doctoral supervisors meet the CNATDCU standards for the doctoral agronomy domain within the past five years.



***The indicator is fulfilled***

INDICATOR B.1.1.1.

After review of the internal evaluation report, and Annex\_B.1.1.1. it can be seen that the ratio between the number of master's graduates of other higher education institutions in the country and the number of funded places from the state budget put up for competition within the doctoral school being 0.45 (25 out of 89 doctoral students admitted to the doctoral exam).

***The indicator is fulfilled***

INDICATOR B.1.2.1.

After review of the internal evaluation report and Annex B.1.2.2. the dropout rate of doctoral students 2 years after admission is 2.24% (2 out of the 89 doctoral students).

***The indicator is fulfilled***

INDICATOR B.2.1.5.

After review of the internal evaluation report, and Annex\_B.2.1.4. it can be seen that the ratio between the number of doctoral students and the number of teachers in the steering commissions is 1.29 (lower than the standard 3:1). Also, the teaching commissions in the field of *Agronomy* are made up with teachers from the faculty of agronomy and from other faculties of the BU which demonstrate the interdisciplinarity support to the doctoral students training.

***The indicator is fulfilled***

INDICATOR B.3.1.1.

Prof. Carmo Monteiro has randomly selected and reviewed the following publications as provided in the annex B.3.1.1 and concluded that the selected published papers in previous 5 years in the domain of *Agronomy* reached the threshold 3 or 4. Considering the duration of the PhD. (three academic years) the publications seems technically and scientific adequate. However, the PhD. students can be encourage to publish also revision papers about the subject of their thesis.

References of the selected publications:

Datcu A.D., Lanovici N., Alexa E., Sala F. 2019. *Nitrogen fertilization effects on some gravimetric parameters for wheat*. Agrolife Scientific Journal, vol. 8, no1, ISSN 2285-5718, p. 87-92.

Sala Anca, Dragomir N., florin Camen, Carmen Dragomir, Toth Ilie, Rechitean Dorin, Florin Neciu. 2016. *Establishing Optimum Time for Foliar Fertilisation in Alfalfa*. Scientific Papers: Animal Science and Biotechnologies, vol. 49, no 2, p. 97-99. (threshold 4)

Malaescu Mihaela, Blidariu C., Dobrei A, Dobrei Alina, Nistor Eleonora, Dragunescu Anca, Olaru Daniela, Velicevici Giancarla, Dobromir Daniela. 2015. *Germination of pollen from several grape varieties depending on interactions: variety - temperature — period of germination*. Journal of Horticulture, Forestry and Biotechnology, vol.19, no 4, p. 36- 40, [www.journal-hfb.usab-tm.ro](http://www.journal-hfb.usab-tm.ro) 36. (threshold 4)

Victor Dumitrascu, Ilinca Imbrea, Georgeta Pop. 2018. *Assessment of the Antioxidant Effect of Ethanolic Extracts Obtained from Agrimoniaeupatoria L.. Filipendulaulmaria*



(L.) Maxim. And *Filipendula vulgaris* Moench collected from the Estero Part of Romania. Revista de Chimie. vol 69, no 9, p. 2385-2390 (factor impact 2017/2018 = 1.412). (threshold 4)

Simona Constantinescu, Ramona Ciolac, Sorina Trifu, Ramona Lile, Ioan Csosz. 2017. *Quality of tourist services - analysis of tourist services from rural tourism wine-growing units*. Journal of Biotechnology of the Eurobiotech 2017 Congress — Volume 256, Supplement, Abstract Book, p S61, ISSN 0168-1656. (threshold 4)

***The indicator is fulfilled***

INDICATOR B.3.1.2.

After review of the internal evaluation report, and Annex\_B.3.1.1-b and Annex B.3.1.2. it was observed that the ratio between the published papers and the number of doctors in the evaluated period (2015-2020) was 4.2. This ratio shows a high commitment of the doctoral students and their supervisors in publishing and disseminate the results of their research work and also the high commitment of the BU in provide the financial support and provide the necessary means to a successful research work.

***The indicator is fulfilled***

INDICATOR B.3.2.1.

According to the Annex B.3.2.1. the indicator is fulfilled.

***The indicator is fulfilled***

INDICATOR B.3.2.2.

According to the Annex B.3.2.2. during the period 2015-2020 in the field of *Agronomy* the ratio was between 0.01 and 0.22 i.e. lower than the indicated standard 0.3.

***The indicator is fulfilled***

INDICATOR C.1.1.2.

After review of the internal evaluation report, and Annex\_C.1.1.2. and also, after the online meetings with the doctoral students and with the Commission for Quality Evaluation and Assurance (CEAC) members / Quality Assurance Department, it was observed that there are collecting mechanisms to evaluate the feedback of the doctoral students. It was observed also, a high level of satisfaction of the doctoral students regarding all the aspects about the doctoral study in *Agronomy*.

***The indicator is fulfilled***

INDICATOR C.3.1.1.

After review of the internal evaluation report, and Annex\_C.3.1.1-01, C.3.1.1-02 and also, the online meetings with the doctoral students it was observed that for the evaluation period there were 65 bilateral Erasmus agreements with higher education institutions from 39 EU countries and 26 Non-EU countries. From the internal evaluation report 35% of PhD. students have completed an internship abroad or other form of mobility. Although the indicator is fulfilled the doctoral students should be encourage to undertaken any international mobility (e.g. ERASMUS) to improve their skills in their study domain.



***The indicator is fulfilled***

**COMMENTS AND RECOMMENDATIONS:**

After careful review of different information sources (self-evaluation reports, applicable annexes, meetings, video calls, web pages, and further clarifications) about the Doctoral study Domain Agronomy of the Banat's University of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania” from Timișoara (IOSUD-USAMVBT), the foreign evaluator Prof. Carmo Monteiro offers following comments and recommendations:

The overall organization of the evaluation by ARACIS and USAMVBT was excellent. Not only the online meetings, but also the availability of the simultaneous translation made it possible to clarify several issues about the evaluation itself and about the internal evaluation report. The willingness to provide complete information on all aspects of the evaluation process in the meetings with the USAMVBT representatives and the open and honest discussion that occurred highlights the high commitment of the University staff for the continuous improvement of the University performance in teaching and researching.

Regarding the overall evaluation of the *Agronomy* doctoral domain and in addition to the aforementioned, I would like to highlight the long tradition of the BU in the field of the Agronomy teaching and researching and also the stability of the teacher's staff (with 100% of all the PhD. supervisors full-time teachers and linked with a contract for an indefinite period to the BU). The existence of an internal internet service for PhD. students as well as the implementation of the similarity report for the PhD. publications and thesis are also positive quality standards of the BU. The efforts of the BU in supporting founding of the PhD. students in the different aspects of their training program (research, publishing, mobility, accommodation, etc.) denotes the commitment of the BU in provide all the conditions for the PhD. students success. This aspect was also observed by the high level of satisfaction of the PhD. students and of the doctoral graduates and also by the high number and level of scientific publications.

However some aspects of the doctoral study in Agronomy domain can be improved as is the case of the internacionalization. The internationalization can be achieved either by increasing the foreigner (i) students, (ii) teachers/expertise doing seminars or in dual tutoring PhD. thesis or increasing the mobility of the students involved in research visits to foreigner universities or research centers. I suggest also that the BU consider to implement the necessary procedures to give the title of “European” PhD. This should add more value for the internationalization of the BU. In addition, publishing revision manuscripts which is possible at the end of the first academic year, will improve the impact factor of the journals published by the doctoral students, and also increase the international visibility of the research work done.



Finally, it was a pleasure for me to work with the ARACIS and with the BU colleagues and meet the excellent work you have done in teaching and researching in the field of *Agronomy*, I wish you all great success for the upcoming years.

With best regards

Maria do Carmo Simões Mendonça Horta Monteiro

Castelo Branco, October 21, 2021