Biljana Drvoshanova, PhD

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Academic qualifications

2023. - Ph.D.

UKIM Faculty of Agricultural Sciences and Food Skopje

Evaluation of the genetic diversity of pepper (Capsicum annuum L.) landraces from the Republic of North Macedonia

2013. – Post master research

Slovak University of Agriculture in Nitra, Slovakia, Institute of Biodiversity Conservation and Biosafety Biochemical composition of heirloom pepper varieties (*Capsicum annuum* L.) from west Bakan region

2012. - M.Sc.

UKIM Faculty of Agricultural Sciences and Food Skopje

Grafting - a perspective method for vegetable seedling production

2009. - B.Sc.

UKIM, Faculty of Agricultural Sciences and Food Skopje

Training and research experience

2022. Training Course on Mutation Breeding and Associated Biotechnologies for Crop Improvement, held from IAEA Headquarters, Skopje, North Macedonia, FASF, 31 October - 4 November

2022. Regional training course on field experimental design and data analysis for the advancement of mutant populations, held from IAEA Headquarters, Vienna, Austria, Virtual event, 21 November - 2 December

2015. Organic production of fruit and vegetables for consultants, Macedonian Organic Producers Federation, FASF, November

2013. Intensive Horticulture for Professionals from Republic of Macedonia, MASHAV (Ministry of Foreign Affairs Israel's Agency for International Cooperation) and CINADCO (Ministry of Agriculture and Rural Development, Centre for International Agricultural Development Cooperation, Israel, July

2008. Training on use of the Aarhus Convention Compliance mechanism. European ECO Forum, United Nations in Geneva, December

Research interests

Vegetable biotechnology (sustainable production practices, transplant production)

Plant genetic resources

Adaptation of agriculture to climate change

Other professional activities

Member of the Regional Expert Advisory Working Group on Market Standards for Fresh Fruits and Vegetables in SEE (REAWG) under SWG RRD

International Society for Horticultural Sciences (ISHS)

Member of the commission for the national variety list of agricultural plants (MAFWE)

Subsector permanent group on regulation of vegetable markets (MAFWE)

AgroBioNet - International network of institutions and researchers

Scientific and applicative projects

2015 - **2016**. Biological control of insects in vegetable production in protected houses. University of Ss. Cyril and Methodius in Skopje, Junior researcher.

2015 – 2016. Country Programme Strategy for Global Environment Facility Small Grants Programme (GEF SGP) for OP6. GEF, Non-key expert

2016. Local action for global climate adaptation. Center for environmental democracy Florozon – Skopje and Germany Embassy in Skopje, Expert

2018 – 2020. Technology for Research and Development of New Products of Expanded Polystyrene with Unlimited Appearance and Form (Seedling trays). Fund for Innovation and Technological Development of RNM, Usjepor, Expert

2019. Country Programme Strategy for Global Environment Facility Small Grants Programme (GEF SGP) for OP7. GEF, Expert

2019 – 2020. Examination of germination status in samples of different types of agricultural crops from the gene bank after a certain period of long-term conservation. University of Ss. Cyril and Methodius in Skopje, Junior researcher

2019 – 2020. RAMAS (Remote Agricultural Monitoring and Advisory System). Fund for Innovation and Technological Development of RNM and AgFutura Technologies. Crop production expert

2019 - 2021. From Disability to Food Ability. We Effect and National Federation of Farmers, Expert

2020-2021. Antioxidative activity of fruits from autochthonous varieties and populations of fruits, vegetables and grapes. University of Ss. Cyril and Methodius in Skopje. Junior researcher.

2021 – 2023. Creating enabling environments for enhanced climate resilience in agriculture. FAO TCP/RER/3802, Expert on crop

production

- **2021 2023.** Correlation between macro and microelements in the soil-plant system. Ministry of education and science in RNM, Junior researcher
- 2022. Food Sturt-up Awareness and Business planning. European Institute of Innovation & Technology (EIT), Expert
- **2023.** Research of the socioeconomic situation among young people from rural areas in Macedonia. University of Ss. Cyril and Methodius in Skopje. Junior researcher
- **2023.** Regeneration and evaluation of autochthonous varieties of vezena pepper from the Gene Bank and health status check. Institute of Agriculture Skopje, researcher
- **2023.** Promotion of Economic Diversification in Rural Areas of South Eastern Europe (SEDRA II) in SEE- Evidence Based Policy development. Regional Rural Development Standing Working Group in South Eastern Europe SWG, National expert
- **2023 2027.** Cost Action 22146 Harnessing the potential of underutilized crops to promote sustainable food production (DIVERSICROP), Member of management committee and Member of Working group for crop science

Scientific publications

- [1] Agic, R., Popsimonova, G., Ibusoska, A., Bogevska, Z., Davitkovska, M., Ristovska, B., Iljovski, I., Georgievski, G., Perspectives of the organic production in Macedonia, *Acta Horticulturae (ISHS)*, 263-268 (2012).
- [2] Agic, R., Popsimonova, G., Kratovalieva, S., Ibusoska, A., Davitkovska, M., Ristovska, B., Jankulovski, D., Jankulovska, M., Iljovski, I., Bogevska, Z., Assessment of genetic diversity among Macedonian tomato (*Lycopersicon esculentum* Mill.) landraces, *Acta Horticulturae* (*ISHS*), 73-76 (2012).
- [3] Bogevska, Z., Agic, R., Ristovska, B., Ibusoska, A., Davitkovska, M., Iljovski, I., International symposium for agriculture and food (Proceedings), *Faculty of Agricultural Sciences and Food Skopje*, 491-502 (2012).
- [4] Drvoshanova, B., *Guide for post-harvest activities for pepper*, Regional Rural Development Standing Working Group in South Eastern Europe, Skopje, p. 12 (2024).
- [5] Drvoshanova, B., *Guide for post-harvest activities for tomato*, Regional Rural Development Standing Working Group in South Eastern Europe, Skopje, p. 12 (2024).
- [6] Drvoshanova, B., Bandzo Oreshkovikj, K., Poposka, H., Sustainable cultivation practices for mitigation of climate change on pepper (*Capsicum annuum* L.) crop, *Journal of Agricultural, Food and Environmental Sciences*, **77**, 9-15 (2023).
- [7] Drvoshanova, B., Brindza, J., Popsimonova, G., Agic, R., Ibusoska, A., Georgievski, G., Variability of fruit traits in pepper (Capsicum spp.) collection from western Balkan region, *Scientific conference: Challenges in modern agricultural production*

(Proceedings), Institute of Agriculture - Skopje, 93-99 (2015).

- [8] Drvoshanova, B., Ibushoska, A., Oreshkovikj, O. B., Poposka, H., Increasing climate resilience in pepper seed production through *Trichoderma harzianum* and soil fertilizer treatments in North Macedonia, *XII International symposium of agricultural sciences AgroRes 2023 (Book of abstracts)*, Trebinje, Bosnia and Herzegovina, 161 (2023).
- [9] Drvoshanova, B., Ivanovska, S., Jankulovska, M., Popsimonova, G., Variation of fruit morphological traits in *Capsicum annuum* L. germplasm collection from North Macedonia, *Journal of Agricultural, Food and Environmental Sciences*, **76**, 26-33 (2022).
- [10] Drvoshanova, B., Ivanovska, S., Jankulovska, M., Popsimonova, G., Phenotypic diversity of local pepper (*Capsicum annuum* L.) varieties intended for dehydration, *Journal of Agricultural, Food and Environmental Sciences*, **77()**, 16-25 (2023).
- [11] Drvoshanova, B., Ivanovska, S., Jankulovska, M., Popsimonova, G., Ibushoska, A., Evaluation of fruit traits in pepper (type kapiya) collection from North Macedonia, *Acta Horticulturae 1320 VIII South-Eastern Europe Symposium on Vegetables and Potatoes (Proceedings)*, 25-32 (2021).
- [12] Ibusoska, A., Agic, R., Bogevska, Z., Ristovska, B., Yield and yield components of newly tomato hybrids in Republic of Macedonia, *International symposium for agriculture and food (Proceedings)*, Faculty of Agricultural Sciences and Food Skopje, 451-460 (2012).
- [13] Ibusoska, A., Drvoshanova, B., Ivanovska, S., Agic, R., Vegetation period and different phenology stages in Macedonian local bean populations (*Phaseolus vulgaris* L.), *Scientific conference: Challenges in modern agricultural production* (*Proceedings*), Institute of Agriculture Skopje, 56-62 (2015).
- [14] Ibusoska, A., Ivanovska, S., Agic, R., Ajruli, G., Drvoshanova, B., Investigation on morphological traits on leaf, pod and seed of local bean (*Phaseolus vilgaris* L.) populations in Macedonia, *Journal of Agricultural, Food and Environmental Sciences*, **68**, 56-63 (2016.).
- [15] Iljovski, I., Ristovska, B., Dimovska, D., Bogevska, Z., Davitkovska, M., Stojkoska, D., Effect on light and artificial lightning in the production of some flower crops, *International symposium for agriculture and food (Proceedings)*, Faculty of Agricultural Sciences and Food Skopje 431-436 (2012).
- [16] Ivanovska, S., Jankulovska, M., Ajruli, G., Drvoshanova, B., Popsimonova, G., Agic, R., Boshev, D., Meglic, V., Genetic diversity evaluation of Macedonian scarlet runner bean (*Phaseolus coccineus* L.) local populations, *3rd International symposium for agriculture and food ISAF 2017*, Ohrid, Republic of Macedonia, (2017).
- [17] Popovska, D., Drvoshanova, B., Ibusoska, A., Dimitrov, L., Azderski, J., Transition processes in agriculture in the Republic of Macedonia with accent on the vegetable production, 1st international meeting Agriscience & practice (Book of abstracts),

- UGD, Faculty of Agriculture, Štip, 13 (2018).
- [18] Popsimonova, G., Agic, R., Ibusoska, A., Bandzo, S., Davitkovska, M., Ristovska, B., Iljovski, I., Georgievski, G., Greenhouse production in Macedonia-challenges and opportunities, *Acta Horticulturae (ISHS)* 277-280 (2012).
- [19] Popsimonova, G., Ristovska, B., Dimitrovski, D., Georgievski, G., Greenhouse production in Macedonia challenges and opportunities, *Mechanical Engineering*, **31**, 77-84 (2013).
- [20] Ristovska, B., Abraham, V., Brindza, J., Variability of fruit antioxidant activity of old varieties and landraces of peppers (*Capsicum annuum* L.) from Balkan region, *Aktualni pytannja zberežennja zdorovja ljudini*, Užgorodskij nacionaľnij universitet, 214-217 (2014).
- [21] Ristovska, B., Abraham, V., Brindza, J., Ibusoska, A., Use of pepper fruit in preparation of traditional food products in the Balkans, in: *Inovácie technológií špeciálnych výrobkov biopotravín pre zdravú výživu ľudí*, Bellérová, B. and Chlebo, P., eds. Nitra: Slovenská poľnohospodárska univerzita, 231-232 (2014).
- [22] Ristovska, B., Agic, R., Iljovski, I., Bogevska, Z., Davitkovska, M., Stojkoska, D., Overview of grafted vegetable seedlings use in the Republic of Macedonia, *International symposium for agriculture and food. XXXVII Faculty Economy Meeting, IV Macedonian symposium for viticulture and wine production, VII Symposium for vegetable and flower production (Book of abstracts)*, Skopje, 85 (2012).
- [23] Ristovska, B., Brindza, J., Abrahamova, V., Agic, R., Variability of flower traits in some heirloom pepper (*Capsicum annuum* L.) varieties from south-eastern Balkan region, *Agrobiodiverzita pre zlepšenie života*, 129-133 (2013).
- [24] Stojkoska, D., Iljovski, I., Ristovska, B., Bogevska, Z., Biological and morphological characteristics of some introduced hybrids of eggplant (*Solanum melongena* L.), *International symposium for agriculture and food. XXXVII Faculty Economy Meeting, IV Macedonian symposium for viticulture and wine production, VII Symposium for vegetable and flower production (Proceedings)*, 409-414 (2012).
- [25] Stojkoska, D., Iljovski, I., Ristovska, B., Bogevska, Z., Productive characteristics of some introduced hybrids of eggplant (Solanum melongena L.), International symposium for agriculture and food. XXXVII Faculty Economy Meeting, IV Macedonian symposium for viticulture and wine production, VII Symposium for vegetable and flower production (Proceedings), 415-423 (2012).
- [26] Богевска, З., Давитковска, М., Иљовски, И., Ристовска, Б., Потенцијалот на Република Македонија во создавање на бренд сорти од зеленчукови култури, *Годишен зборник на Факултетот за земјоделски науки и храна Скопје,* **55**, 23-29 (2010).
- [27] Богевска, З., Давитковска, М., Попсимонова, Г., Агич, Р., Тимов, Т., Иљовски, И., Ристовска, Б., Георгиевски, Г.,

Мерки за заштеда на енергијата во градинарското производство, *Годишен зборник на Факултетот за земјоделски науки и храна - Скопје,* **56**, 39-46 (2011).

- [28] Дрвошанова, Б., Водич за агро-еколошки мерки, ЦЕД Флорозон, Скопје, р. 22 (2016).
- [29] Дрвошанова, Б., Мерки за адаптација на земјоделството кон климатските промени, ЦЕД Флорозон, Скопје, р. 24 (2016).
- [30] Дрвошанова, Б., Ибушоска, А., Вангеловски, И., *Прирачник за одржливо управување со пластеници*, Национална федерација на фармери, Скопје, р. 15 (2021).
- [31] Ристовска, Б., Развојот на цвеќарството во политиката за рурален развој во Македонија, *Зборник на студентски трудови на Факултетот за земјоделски науки и храна Скопје*, 5-10 (2010).