Sumy National Agrarian University

ZHATOVA Halyna

19.02.1958
Ukrainian

Contact information *	Sumy, H. Kondratiieva Str., 144/2, apt. 29, 40021 +380686369575 Gzhatova@ukr.net
Personal profiles in scientometric databases*	ORCID: https://orcid.org/0000-0002-8606-6750 Research ID: U-2130-2018 Google Scholar: http://scholar.google.com.ua/citations?user=EvbADIkAAAAJ&hl=uk
Education *	21.06.2080 Biologist, Teacher of Biology and Chemistry Kharkiv National University named after Karazin 29.12.2020 Master's Degree in Plant Protection and Quarantine Sumy National Agrarian University
Academic degree *	30.04.1986 PhD of Agricultural Sciences in Specialty Plant Breeding and Seed Production
Academic title *	Professor, N111569, 25.02.2016

Faculty of agrotechnologies and natural resource management SNAU

Professional work experience *	09.1986 till now Professor of the Ecology and Botany Chair, Department of Agrothechnology and Natural Resource Management, Sumy National Agrarian University Experience of research and / or research and teaching *work – 37 years*

Main research activities

Participation in collective research projects *(no more than 5 positions in the last 10 years)*	Creation of sunflower seed material adapted to the conditions of the north-eastern forest steppe of Ukraine in terms of precocity and tolerance to soil acidity. APP12 Oil plants State registration number: 0114B003284 Allocation 12.01.00.08P Development of projects on creation of territories and objects of nature protection fund of local importance in accordance with Art. 52 of the Law of Ukraine "On the Nature Reserve Fund of Ukraine" (State Registration No. 0118U100264). Creation of starting material for grain and oilseed crops resistant to heavy metal accumulation, 0119U101581 2019-2023 Optimization of varietal technology for growing grain sorghum in the conditions of the northeastern Forest-Steppe of Ukraine 0121U109711 2021-2025

Main scientific achievements

Main research publications *(no more than 10 items for the last 10 years)*	1.Halyna Zhatova, Volodymyr Trotsenko, NadiiaTrotsenko, Mykola Radchenko, Andrii Butenko, Liudmyla Bondarieva, Inna Zubtsova (2025) Quinoa microbiota and its importance for sustainable crop production J.Modern Phytomorphology, 19, 178-182, DOI: 10.5281/zenodo.200121 2.Volodymyr Trotsenko1, Halyna Zhatova, Vladyslav Tiutiunnyk, Andrii Butenko1, Inna Kolosok1, Maryna Kovalenko, Approaches to control of winter rapeseed wintering (2025) Modern Phytomorphology , 19, 183-187, DOI: 10.5281/zenodo.200121 Liuliu Wu, Lifan Cao, Ye Tao, Halyna Zhatova, Haiyan Hu, Chengwei Li, Identification of the succinate-CoA ligase protein gene family reveals that TaSUCL1-1 positively regulate cadmium resistance in wheat, International Journal of Biological Macromolecules,2024,131693, ,https://doi.org/10.1016/j.ijbiomac.2024.131693. 3.Li, C., Fu, Y., Trotsenko, V. & Halyna Zhatova Understanding the physiological and molecular mechanisms of grain cadmium

accumulation conduces to produce low cadmium grain crops: a review. Plant Growth Regul 103, 257–269 (2024). https://doi.org/10.1007/s10725-023-01105-x

4.Nadiia Trotsenko, Halyna Zhatova, & Mykola Radchenko. (2023). Growth and yield capacity of quinoa (Chenopodium quinoa WILLD.) depending on the sowing rate in the conditions of the North-Eastern Forest-Steppe of Ukraine. AgroLife Scientific Journal, 12(2), 206–213. doi: https://doi.org/10.17930/AGL2023226

5.Liuliu Wu, Yongang Yu, Haiyan Hu, Ye Tao, Puwen Song, Dongxiao Li, Yuanyuan Guan, Huanting Gao, Xiaotian Sui, Trotsenko Volodymyr, Vlasenko Volodymyr, Halyna Zhatova and Chengwei Li (2022). A New Vesicle Transport Protein SFT2 - like (SFT2L) Enhances cadmium tolerance and reduces cadmium accumulation in common wheat grains. Journal of Agricultural and Food Chemistry. DIO: https://doi.org/10.1021/acs.jafc.1c08021.

6.Liuliu Wu, Yongang Yu, Xiaotian Sui, Ye Tao, Halyna Zhatova, Puwen Song, Dongxiao Li, Yuanyuan Guan, Huanting Gao, Trotsenko Volodymyr, Qiaoyan Chen, Haiyan Hu, Chengwei Li (2022). A novel wheat β - amylase gene TaBMY1 reduces Cd accumulation in common wheat grains, Environmental and Experimental Botany, 203, 2022, 105050, https://doi.org/10.1016/j.envexpbot.

7.Fu Yuanzhi, Zhatova Halyna, Li Yuqing, Liu Qiao, Trotsenko Volodymyr, Li Chengqi Physiological and Transcriptomic Comparison of Two Sunflower (Helianthus annuus L.) Cultivars With High/Low Cadmium Accumulation J .Frontiers in Plant Science VOLUME=13 2022. DOI=10.3389/fpls.2022.854386 AgroLife Scientific Journal , (2020) (9) 2, pp.339-346

8.Trotsenko V., Nesmachna M., Zhatova H., Kabanets V., Melnyk A. Study of buckwheat collection suitable for summer sowing., AgroLife Scientific Journal, (2021) 9(2), pp.71-77

9.Bondarieva L., Zhatova H Ontogenetic structure of cereal populations under the influence of grazing and mowing on floodplain meadows in Forest-Steppe zone of Ukraine AgroLife Scientific Journal, (2020) 9(2), pp.71-77

Other significant scientific achievements

(no more than 5 positions for the last 10 years)

1.Trotsenko, V., Zhatova, H., & KovalenkoM. (2025). Yield of grain sorghum depends on fertilizer and varietal characteristics. Bulletin of Sumy National Agrarian University. The Series: Agronomy and Biology, 58(4), 9-15. https://doi.org/10.32782/agrobio.2024.4.2

2.Trotsenko, N. V., & Zhatova, H. O. (2024). Influence of pre-harvest preparation of crops on the quality of quinoa seed. Bulletin of Sumy National Agrarian University. The Series: Agronomy and Biology, 57(3), 75-81. https://doi.org/10.32782/agrobio.2024.3.10

	3.Kovalenko M. O., & Zhatova H. O. (2024). Yield of sorghum depends on sowing rates in the north-eastern forest steppe of Ukraine. Bulletin of Sumy National Agrarian University. The Series: Agronomy and Biology, 55(1), 86-93. **https://doi.org/10.32782/agrobio.2024.1.12** 4.Trotsenko, V. I., Zhatova, H. O., Kovalenko, I. M., Pysarenko, P. V., Skliar, Y. L., & Bondarieva, L. M. (2023). Efficiency of using morphometric analysis for identification of pumpkin varieties. Bulletin of Sumy National Agrarian University. The Series: Agronomy and Biology, 51(1), 120-128. **https://doi.org/10.32782/agrobio.2023.1.14** 5.Trotsenko, N. V., & Zhatova, H. O. (2022). Germination characteristics of quinoa seeds. Bulletin of Sumy National Agrarian University. The Series: Agronomy and Biology, 50(4), 55-61. https://doi.org/10.32845/agrobio.2022.4.8
REPORTS AT SCIENTIFIC CONFERENCES* (seminars, symposia, etc.) (no more than 10 items in the last 10 years)	1.Trotsenko N., Zhatova H. Features of leaf quinoa development depending on fertilization, p.16. Modern Science, Economy and Digital Innovation: Collection of Scientific Papers "International Scientific Unity" with Proceedings of the 1st International Scientific and Practical Conference. January 29-31, 2025. Bucharest, Romania. 2.Trotsenko N., Zhatova H. Influence of quinoa crop density on seed germination and plant survival, p.16 Challenges and Opportunities in Modern Scientific Research: Collection of Scientific Papers "International Scientific Unity" with Proceedings of the 1st International Scientific and Practical Conference. February 19-21, 2025. Ivano-Frankivsk, Ukraine 3.Ilchenko V.O., Zhatova G.O. Prospects for the use of the drug Leanum in the technology of growing sunflower. Abstracts of the International Scientific and Practical Conference "GONCHAROV'S READINGS" dedicated to the 94th anniversary of the birth of Doctor of Agricultural Sciences, Professor Mykola Demyanovich Goncharov, May 25, 2023, 106-108 4.Zhatova G. O., Bondareva L. M., Zakhozha S. A. (2022) Recreational potential of the Pyryatynsky National Nature Park. Proceedings of the International Scientific and Practical Conference "GONCHARIVSKI READINGS" dedicated to the 93rd anniversary of the birth of Doctor of Agricultural Sciences, Professor Mykola Demyanovich Goncharov, May 25, 2022, p.199 5,Bondareva L. M., Zhatova G. O., Zubtsova I. V., Bilan S. P., Kohut A. A. (2022) Determination of stocks of medicinal raw materials based on the study of the size structure of Hypericum perforatum L. populations in the conditions of Sumy region Proceedings of the International Scientific and Practical Conference "GONCHARIVSKI READINGS" dedicated to the 93rd anniversary of the birth of Doctor of Agricultural Sciences, Professor Mykola Demyanovich Goncharov, May 25, 2022. , p.202

MAIN RESEARCH ACHIEVEMENTS (patents, copyright certificates, internships, etc.)	1. Certificate. s. for plant variety No. 0536. Ukraine. Sunflower. Sumchanin Application No. 01017024. – Registered in the Register of Plant Varieties of Ukraine in 2005. 2 Certificate for plant variety No. 0742. Ukraine. Sunflower. ChaS Application No. 03017047. – Registered in the Register of Plant Varieties of Ukraine in 2006 3. Certificate. for plant variety No. 120138. Ukraine. Sunflower. Farmer Application No. 08017001. – Registered in the Register of Plant Varieties of Ukraine in 2012 4. Patent for variety No. 200302 Annual Sunflower Esman 07/14/2020 5. Certificate No. 220083 on state registration of plant variety Quartet (Loboda quinoa) 01/10/2022, 6. Certificate for plant varieties. Quinoa "Komiza", 240031 01/12/2024 . 7. Certificate of registration of a plant gene pool sample in Ukraine, population P-1926, No. 2534, 05/15/2024 8. Certificate of registration of a plant gene pool sample in Ukraine, population P-1932, No. 2536, 05/15/2024 **9.** Certificate of registration of a plant gene pool sample in Ukraine, population P-1941, No. 2535, 05/15/2024

Teaching activity

Main author's training courses in higher education institutions (developed on the basis of own research) *(no more than 5 items for the last 10 years)*	General Microbiology and Virology: I level of higher education, Sumy National Agrarian University, 10 ECTS credits (2020-2025)https://cdn.snau.edu.ua/moodle/course/view.php?id=5021&lang=uk Microbiology with Fundamentals of Virology, I level of higher education, Sumy National Agrarian University, 5 ECTS credits (2020-2025)https://cdn.snau.edu.ua/moodle/course/view.php?id=1091 Seed Science, I level of higher education, Sumy National Agrarian University, 5 ECTS credits (2020-2025) https://cdn.snau.edu.ua/moodle/course/view.php?id=1240 Seed quality assessment methods. 3rd level of higher education, Sumy National Agrarian University, 5 ECTS credits (2025-26)https://cdn.snau.edu.ua/moodle/course/view.php?id=6177

Major author's methodological developments (textbooks, manuals, teaching materials, curricula for higher education) *(no more than 5 items for the last 10 years)*	Technology systems in plant production : Textbook (English) / G. O. Zhatova, V. I. Trotsenko / Sumy: University Book, - 2018. - 230
Supervision of scientific work (scientific supervision or consulting of dissertation research that has been successfully defended) *(no more than 5 positions in the last 10 years)*	Pshychenko O. I. "Sowing and yield properties of sunflower seeds depending on their preparation in the conditions of the northeastern Forest-Steppe of Ukraine", specialty 06.01.14. □ seed production, DK No. 004011, decision of the Attestation Board dated January 19, 2012. Masyuchenko O. M. "Formation of productivity of individual legume crops depending on elements of cultivation technology in the conditions of the northeastern Forest-Steppe of Ukraine", specialty 06.01.09 – plant production, DK No. 020363, decision of the Attestation Board dated May 16, 2014. Lavryk I. M. "Optimization of elements of cultivation technology of narrow-leaved lupine and white lupine in the conditions of the northeastern Forest-Steppe of Ukraine" specialty 06.01.09 – plant production, DK No. 025644, decision of the Attestation Board dated December 22, 2014 Vu Lyulyu Creation of starting material of winter wheat resistant to cadmium accumulation. Doctor of Philosophy 201 Agronomy. Sumy National Agrarian University. March 24, 2023 H23 No. 000383. https://science.snau.edu.ua/golovna/vu-lyulyu/ Kovalenko M.O. Optimization of varietal technology for growing grain sorghum in the conditions of the northeastern forest-steppe of Ukraine Doctor of Philosophy 201 Agronomy. Sumy National Agrarian University. October 1, 2024 H24 No. 003997
Expert activity	
Membership in specialised academic councils for the defence of dissertations *(no more than 5 positions in the last 10 years)*	1. Jia Peipei.10.02. 2023 Order No. 495-k dated 18.11.2022 2. He Songtao 11.10.2023. Order No. 410-k dated 07.08.2023 3. Sihuan Zhang 29.03.2024 Order No. 735-k dated 28.12.2023

Improving scientific qualifications

Additional professional training (trainings, summer schools, educational seminars, workshops, courses, etc. to obtain relevant scientific knowledge, skills and abilities) *(no more than 5 positions in the last 10 years)*	Participant of the project “Strengthening the scientific potential and cooperation of Ukrainian universities in the field of agricultural sciences” 2021: “Global warming, life cycle, potential for crop assessment”. Prague, December , 2021 Participant Sustainable energy and climate: EU experience for Ukraine. Erasmus+ Jean Monnet Chair project “EU Climate Leadership” 620031-EPP-1- 2020-1-UA-EPPJMO-CHAIR, October 25-29, 2021 Participant of the International Online Forum "Pathways to Sustainable Development: Regional Perspectives and Best Practices" within the framework of the international project "Enhancing Environmental Skills through Cross-Border Cooperation between the EU and Ukraine" No. 22420189, funded by the Visegrad Fund. March 26, 2025
Knowledge of foreign languages	English – Level B2