



ZHATOVA Halyna

19.02.1958
Ukrainian

Contact information *

Sumy, H. Kondratiieva Str., 144/2, apt. 29, 40021
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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, N11569, 25.02.2016





Professional work experience *

09.1986 till now
Professor of the Ecology and Botany Chair, Department of
Agrotechnology 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, Nadiia Trotsenko, 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

