MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE

LUHANSK TARAS SHEVCHENKO NATIONAL UNIVERSITY, UKRAINE FACULTY OF NATURAL SCIENCES

VYTAUTAS MAGNUS UNIVERSITY, LITHUANIA SAINT CLOUD STATE UNIVERSITY, USA

NATIONAL BOTANICAL GARDEN (INSTITUTE) «ALEXANDER CIUBOTARU», REPUBLIC OF MOLDOVA

INSTITUTE OF BIOLOGY, FACULTY OF NATURAL SCIENCES AND TECHNOLOGIES, UNIVERSITY OF OPOLE, POLAND

STATE ENTERPRISE INSTITUTE OF GRAIN CROPS OF NATIONAL ACADEMY OF AGRARIAN SCIENCES OF UKRAINE, UKRAINE

INSTITUTE OF AGROECOLOGY AND ENVIRONMENTAL MANAGEMENT OF NATIONAL ACADEMY OF AGRARIAN SCIENCES, UKRAINE

LVIV POLYTECHNIC NATIONAL UNIVERSITY, UKRAINE

POLTAVA ACADEMY OF CONTINUING EDUCATION NAMED AFTER M.V. OSTROGRADSKYI, UKRAINE

V. N. KARAZIN KHARKIV NATIONAL UNIVERSITY, UKRAINE ALL-UKRAINIAN ENVIRONMENTAL LEAGUE, UKRAINE STATE ENVIRONMENTAL INSPECTION IN LUHANSK OBLAST, UKRAINE UKRAINIAN AGRIBUSINESS CLUB, UKRAINE

III INTERNATIONAL SCIENTIFIC AND PRACTICAL CONFERENCE "NATURAL SCIENCES: PROJECTS, RESEARCHES, PROSPECTS"

to the 100th anniversary of the Faculty of Natural Sciences



15-16 December 2022 Myrhorod, Ukraine

	CONFERENCE ORGANIZERS				
	Chair of the Conference				
Olena KARAMAN	Doctor of Pedagogical Sciences, Professor, Rector of Luhansk Taras Shevchenko National University, Ukraine				
	Co-chairs				
Vitalii KURYLO	Doctor of Pedagogical Sciences, Professor, Academician of the National Academy of Educational Sciences of Ukraine, Chairman of the Academic Council of the University, First Vice-Rector of Luhansk Taras Shevchenko National University, Ukraine				
Nataliia MATSAI	Candidate of Agricultural Sciences, Associate Professor, Dean of the Faculty of Natural Science of Luhansk Taras Shevchenko National University, head of the Luhansk regional "All-Ukrainia Environmental League", Ukraine				
	CONFERENCE PROGRAMME COMMITTEE				
Ihor AKSONOV	Doctor of Agricultural Sciences, Professor of the Department of Biology and Agronomy of Luhansk Taras Shevchenko National University, Ukraine				
Olena BLINKOVA	Doctor of Biological Sciences, Professor of the Department of Horticulture and Ecology of Luhansk Taras Shevchenko National University, Ukraine				
Larysa BOROVYK	Candidate of Biological Sciences, Director of the Luhansk Nature Reserve of the National Academy of Sciences of Ukraine, Ukraine				
Sergii GLOTOV	Candidate of Biological Sciences, Junior Researcher, State Institution National Antarctic Scientific Center, Ministry of Education and Science of Ukraine.				
Oksana DREBOT	Doctor of Economic Sciences, Professor, Academician of the National Academy of Science Director of Institute of Agroecology and Environmental Management of National Academy of Agrarian Sciences, Ukraine				
Anatolii HATSKO	Head of the State Environmental Inspection in Luhansk Oblast - Chief State Inspector for Environmental Protection of Luhansk Oblast, Ukraine				
Yurii KYSELOV	Doctor of Geographical Sciences, Professor of the Department of Geodesy, Cartography and Cadastre of the Uman National University of Horticulture, Ukraine				
Yuliia KRASYLENKO	Candidate of Biological Sciences, lecturer-researcher of the Department of Biotechnology, Faculty of Sciences, Palacký University Olomouc, Czech Republic				
Nadiia MAKSYMENKO	Doctor of Geographical Sciences, Professor, Head of the Department of Environmental Monitoring and Protected Areas, Karazin Institute of Environmental Sciences, V. N. Karazin Kharkiv National University, Ukraine Department of environmental monitoring and protected affairs				
Saulius MICKEVICIUS	Doctor of Physical Sciences, Professor, Dean of the Faculty of Natural Sciences, Vytautas Magnus University, Lithuania				
Mykyta PEREGRYM	Candidate of Biological Sciences, Senior Lecturer of the Department of Horticulture and Ecology, Luhansk Taras Shevchenko National University, Ukraine				
Ihor PETRUSHKA	Doctor of Technical Sciences, Professor, Head of the Department of Environmental Safety and Environmental Protection, Lviv Polytechnic National University, Ukraine				
Eduard POTAPENKO	Doctor of Chemical Sciences, Professor of the Department of Chemistry, Geography and Earth Sciences, Luhansk Taras Shevchenko National University, Ukraine				
Vitalii RAZDAIBEDIN	Ph.D., Molecular Biology Laboratory Coordinator, Department of Biological Sciences, St. Cloud University, USA				
Ion ROSHKA	Doctor of Biological Sciences, Director of National Botanical Garden (Institute) 'Alexande Ciubotaru', Republic of Moldova				
Tetiana TYMOCHKO	Head of the All-Ukrainian Environmental League, Ukraine				

Vladyslav CHERCHEL	Doctor of Agricultural Sciences, Corresponding Member of the National Academy of Science Director of the State Enterprise Institute of Grain Crops of National Academy of Agrarian Science of Ukraine, Ukraine				
Iryna TSYMBAL	Candidate of Pedagogical Sciences, Associate Professor, Director of the Luhansk Reg Institute of Professional Development, Ukraine				
Anatolii TSYRKUN	Director General of UCABevent and UCABtravel agencies of the Ukrainian Club of Agraria Business, head of the 'Agrokebety' program, Ukraine				
Vitaliy ZELYUK	Candidate of Pedagogical Sciences, Associate Professor, Director of the Poltava akademy of continuing education M. V. Ostrogradsky, Ukraine				
Malgorzata YAZHVA	Assistant Professor, Faculty of Natural Sciences and Technologies, Institute of Biology, University of Opole, Poland				
ORGANIZATION COMMITTEE					
Iryna KYRPYCHOVA (Head of the Organization Committee)	,				
SECRETARIAT OF ORGANIZATION COMMITTEE					
Kateryna BEREZENKO (Head of the Secretariat)	Senior Lecturer of the Department of Horticulture and Ecology, Luhansk Taras Shevchenko National University, Ukraine				

DEAR COLLEAGUES!

You are invited to participate in the **III INTERNATIONAL SCIENTIFIC AND PRACTICAL CONFERENCE** "NATURAL SCIENCES: PROJECTS, RESEARCHES, PROSPECTS", which will be held on **December 15-16, 2022** at the Faculty of Natural Sciences of the Luhansk Taras Shevchenko National University, Myrhorod, Ukraine. The conference is dedicated to the 100-th anniversary of the Faculty of Natural Sciences of SE 'Luhansk Taras Shevchenko National University'.

AIM OF THE CONFERENCE

Discussion of topical theoretical and practical issues in the fields of Biology, Natural and Agricultural Sciences, substantiation of promising directions of research for the purpose of their further development, establishment of professional contacts, encouragement of young people to scientific research

TOPICS OF CONFERENCES

Biology, Natural and Agricultural Sciences, Education (Natural Sciences)

THEMATIC AREAS (SECTIONS) OF THE CONFERENCE*

- 1. Achievements, problems and perspectives of research in the fields of Biology and Natural Sciences
- 2. Agricultural Sciences and Food: traditions, problems and prospects
- 3. Education: issues of theory and practice (Natural Sciences)
- * under the conditions of submission of reports on a common topic, subsections will be created
- * under the conditions of submission of reports on a common topic, subsections will be created

PARTICIPANTS TO BE INVITED

scientists, post-graduate students/students of education, employees of research institutions, educational administrations/institutions, representatives of enterprises/farms according to the profile of the conference

WORKING LANGUAGES OF THE CONFERENCE / FORMAT OF THE CONFERENCE / FORM OF PARTICIPATION

- ✓ conference languages: Ukrainian, English
- ✓ off/on-line
- ✓ off/on-line participation with an oral report (up to 10 minutes) and publication of theses off/on-line participation without a report with the publication of theses

MATERIALS OF THE CONFERENCE

- ✓ conference program
- ✓ electronic collection of materials (abstracts of reports)
- ✓ printed collection of materials (abstracts of reports)
- ✓ electronic certificates of the speaker/participant

ORGANIZATIONAL CONTRIBUTION

participation in the conference and publication of report abstracts, receipt of electronic materials

- ✓ posting abstracts of reports in the electronic collection of conference materials. The collection will be published in the repository of Luhansk Taras Shevchenko National University http://dspace.luguniv.edu.ua/xmlui/
- ✓ distribution *of electronic materials* (conference program, collection of materials (abstracts of reports), speaker/participant certificate).

For foreign participants, participation in the conference and receiving electronic materials of the conference is free

Payment of the commission for bank transactions is not included in the amount of the organizational contribution and is carried out at the expense of the conference participant

IMPORTANT DATES: ACCEPTANCE OF MATERIALS, PUBLICATION, DISTRIBUTION

until 1 December 2022 18⁰⁰ **materials are accepted** electronically via e-mail **fpn.conf@gmail.com:** application form (https://docs.google.com/forms/d/1RuE_poXqrASTf6HsY3QScUt0_eMT84lLHzdwwgd ABO0/edit), materials (theses) for publications, scan/photo of payment receipts

In the subject of the e-mail, it is necessary to indicate the surname of the speaker and the number of the section to which the materials are submitted, for example: **Shevchenko** (1) The name of the file must correspond to the last name of the speaker with the following indication: for the application - Application; for article - Article; confirmation of payment org. contribution - Contribution

For example: **Shevchenko_Article** (format (.rtf, .doc),

Shevchenko_Contribution (format (.rtf, .doc, .pdf, png, jpg),

Shevchenko_Application (format (.rtf, .doc)

WARNING! Notification of receipt of application and materials for publication will be sent to participants by e-mail within three days. If there is no confirmation, please send the materials again and contact the organizers.

until 5 December 2023 **sending a second information letter** with the conference program, tips about your trip and other important information to all participants who have paid the organizational fee

until 1 January 2023 **distribution of electronic conference materials** (conference program, collection of materials and certificate of participant/speaker)

until 10 January 2023 mailing of a printed collection (upon prior order and payment)

ATTENTION! The Organization Committee reserves the right not to accept materials (theses for printing) that do not meet the specified requirements or are sent after the deadline. The authors are responsible for the content of the materials

CONTACT PERSONS FOR PARTICIPATION IN THE CONFERENCE Kateryna Berezenko, Iryna Kyrpychova, Natalia Matsai, Pead of the Conference Secretariat Head of the Organization Co-chair of the Conference Committee +380505270957 +380954850545 +380507671066 Viber, Telegram, WhatsApp Viber, Telegram, WhatsApp Viber, Telegram, WhatsApp

AUTHOR GUIDELINES

1. The size of the conference materials, fully prepared for printing, is 1 to 4 **full** pages.

- 2. All papers should be developed with the help of MS Word, 12 points (*doc, *docx, *rtf), Times New Roman font, single raw spacing. Page format is A4; all margins 2.0 cm.
- 3. The surname and initials of the author(s) are indicated in the center of the text field (bold font, center alignment, no paragraph).
- 4. Across the line from the last name (font not bold, aligned in the center, without a paragraph) academic degree, rank, position, place of work; e-mail
- 5. The name of theses is printed across the line in capital letters (bold font, center alignment, no paragraph)
- 6. ATTENTION! References to cited sources in the text are drawn up as follows:
- the last name of the author and the year of publication of the work are indicated in round brackets (for example, Shumska, 2010)
- if it is necessary to refer to several sources, they should be presented through semicolons (for example, Afanasyeva, 2016; Bogdanova, Sannikova, 2015; Moore, 2006)
- if quotations, direct references, etc. are used, the page number of the reference should be indicated (Afanasieva, 2016, p. 46; Bruner, 2012, p. 24)
- 7. Graphic materials (diagrams, photos, drawings, schemes, formulas, etc.), tables and other non-textual components are placed in the text and formatted in accordance with generally accepted requirements (numbers of drawings, tables, etc., their names, decoding of numerical designations are indicated). It is advisable not to tear the tables. Graphic materials and tables are separated from the text by a free line
- 8. The bibliographic description and, if necessary, notes are given at the end of theses after the heading "List of used literature" (through a line after the end of the text, center alignment, without paragraph and colon, normal font) in the order of citation. Bibliographic sources are presented consecutively, without paragraph separation; the name of the author of the work (or the first word of its title) is highlighted in bold. We suggest drawing up a list of literature in accordance with **DSTU 8302:2015** (**State standard**) or in the format **Vancouver Style**

PLEASE KINDLY SEE THE EXAMPLE:

Shevchenko E.S.

Assistant at the Department of Biology and Agronomy, Luhansk Taras Shevchenko National University, Myrhorod, Ukraine, biology@gmail.com

THE NANOPREPARATIONS IMPACT ON PLANT GROWTH AND DEVELOPMENT OF ZEA MAYS SACCHARATA IN THE INITIAL STAGES OF ONTOGENESIS

Text	
Text	
Text	
Text	

The use of the drug on sugar corn plants led to an increase in seed germination energy by an average of 6-8% (Table 1).

Table 1

Energy of germination of seeds of sugar corn plants

Variants of the experiment	Germination energy, %
Control	82,50 (± 3,2)
Epin-extra	90,00 (± 2,2)
Nano-Gro	95,75 (± 2,1)

Text	
Text	
Text	
Text	

The different drugs effect on the germination energy is shown in Fig. 1.

Thus, the use of Nano preparation "Nano-Gro" improves the germination conditions, growth and development of sugar corn plants.

References

1. Growth regulators based on natural raw materials and their application in crop production / V.K. Yavorskaya, I.V. Dragovoz, L.O. Kryuchkova at al. Kyiv: Logos, 2006. 176 p. **2. Kots S.Y.,** Peterson N.V. Mineral elements and fertilizers in plant nutrition. Kyiv: Logos, 2009. 182 p. **3. Mamchur O.V.** Physiological bases of productivity of corn plants under the action of growth regulators Zeastimulin and Emistim C: author's ref. dis. on achiev. Science. degree of Cand. biol. Science: special. 03.00.12 "Plant Physiology". Uman, 2010. 18 p. **4. Masliiov S. V.,** Macai N. Y., Beseda O. O., Stepanov V. V. Control of Broomrape *Orobanche cumana* Wallr. *Ukrainian Journal of Ecology*. 2018. № 8 (2). P. 74-80. URL: https://www.ujecology.com/articles/control-of-broomrape-orobanche-cumana-wallr.pdf