

Book of Abstracts of the

6th International Scientific Conference

AGROBIODIVERSITY FOR IMPROVING THE NUTRITION, HEALTH, QUALITY OF PEOPLE LIFE AND NATURE

Nitra 2024

DOI: https://doi.org/10.15414/2024.9788055227702

Arboretum and Department of Physiography in Bolestraszyce

M.M. Gryshko National Botanical Garden of the National Academy of Sciences of Ukraine, Kyiv, Ukraine
Department of Fruit Plants Acclimatization

Slovak University of Agriculture in Nitra
Institute of Plant and Environmental Sciences
Institute of Food Sciences

Botanical Garden of Ivan Franko National University of Lviv

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of the

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Agrobiodiversity for Improving the Nutrition, Health, Quality of People Life and Nature

September 8, 2024

Nitra 2024

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Institutions and experts were actively involved in the organization of the 6th International Scientific Conference

Agrobiodiversity for Improving the Nutrition, Health, Quality of People Life and Nature

in the framework of

AgroBio*Net*

International Network
within the implementation of the International Program

Agrobiodiversity for Improve the Nutrition, Health and Quality of Life

Authors and author collectives present at the international conference in lectures, posters and publications also results and knowledge obtained from the solution:

Research Projects
ITEBIO ITMS 26220220115
AGROBIOTECH ITMS 26220220180
BIOPOTRAVINY ITMS 25110320104
MVTS/SR-UA/FAPZ-6/14 2022–2026
MVTS-SR-UA/FAPZ/-08/10 2021–2026
MVTS-SR-MD/FAPZ/1/15 2022–2026

Research Programs from research stay of participants with financial support from the Agencies and the EU programs

The Ministry of Education, Research, Development and Youth of the Slovak Republic – Bilateral Agreements
Slovak Academic Information Agency (SAIA)
The International Visegrad Fund (V4)
ERASMUS+
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Funded by the European Union

MINISTRY OF EDUCATION, RESEARCH, DEVELOPMENT AND YOUTH OF THE SLOVAK REPUBLIC

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Visegrad Fund

Erasmus+

UNESCO

Title: Book of Abstracts of the 6th International Scientific Conference Agrobiodiversity for Improving the Nutrition, Health, Quality of People Life and Nature

Editor: Ján Brindza

Managing Editor: Olga Grygorieva

Associate Editors: Olena Vergun, Vladimíra Horčinová Sedláčková

Reviewers: Members of International Scientific Committee of the 6th International Scientific Conference (In accordance with the ethical rules for reviewing process with exclusion of possible conflict of interests)

Author of e-environment design, graphic design: Olga Grygorieva

Cover designed: Olga Grygorieva, Marina Korz

Publication place: Nitra

Publication year: 2024

Language: English

Form: online

Edition: AgroBio*Net*

Publisher: Slovak University of Agriculture in Nitra

The publication was approved by the Rector of the Slovak University of Agriculture in Nitra on 16th September 2024 as an online peer reviewed book of abstracts of an International Scientific Conference.

In the Book of Abstracts prepared with minor editing and published, corresponding co-authors are responsible for the accuracy of their submitted abstracts.

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ISBN 978-80-552-2770-2

DOI: https://doi.org/10.15414/2024.9788055227702

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INTRODUCTION OF SPECIES OF THE GENUS *TILIA* L. ON THE BOTANICAL AND GEOGRAPHICAL AREA "FAR EAST" OF M.M. GRYSHKO NATIONAL BOTANICAL GARDEN OF THE NATIONAL ACADEMY OF SCIENCES OF UKRAINE

Nataliia Kushnir[1], Lesia Bondareva[2]
[1]M.M. Gryshko National Botanical Garden of the National Academy of Sciences of Ukraine, Kyiv, Ukraine; E-mail.: crocusnat8@gmail.com
[2]National University of Life and Environmental Sciences of Ukraine, Kyiv, Ukraine

In the M.M. Gryshko National Botanical Garden of the National Academy of Sciences of Ukraine for over 70 years, was created a botanical and geographical area "Far East". One of the main aspects of plant protection is population modeling of rare and endangered species in artificially created phytocenoses. 130 species of Far Eastern flora have been introduced to the site, of which 59 species contain rare species of flora, which is 46% of the total species composition.

Among the diversity of forest-forming species that create introductory plantings of the Flora of the Far East in the territory of the National Botanical Garden, from the *Malvaceae* Juss family. (*Tiliaceae* juss) are presented three types of *Tilia* L.: *Tilia amurensis* Rupr., *Tilia mandshurica* Rupr. & Maxim. and *Tilia taquetii* C.k. Schneid.

According to the results of the inventory, all three species are currently growing on the area in conditions close to natural. Plants flower and bear fruit, and form full-fledged seeds, which in favorable years form dense self-sowing. For 2–3 years, up to 15% of seedlings remain, and for 5–10 years, up to 3–5% remain under the forest canopy. In open areas, where there is natural fall of trees, or sanitary felling, the percentage of seedlings increases to 10–12% in the tenth year.

For 70 years of the existence of the botanical and geographic area "Far East", garden employees have been conducting a unique introductory experiment on the transfer of Far Eastern species to Ukraine. Special attention is paid to rare species, and various degrees of their adaptation to the natural conditions of the Middle Dnieper region are studied.

Tilia amurensis and *Tilia mandshurica* created full-fledged populations of different ages in the botanical and geographical areas. All three types of linden are drought-resistant, and little damaged by pests and diseases. Decorative from early spring to autumn. These data indicate the success of the introduction of Far Eastern species of the *Tilia* family in the conditions of Kyiv, which makes it possible to use them in landscaping.

In the natural conditions where *Tilia* grows, there is a decrease in their natural range of distribution area, which leads to a decrease in the number of populations. According to the latest data from The IUCN Red List of Threatened Species, lindens are protected in Japan, China, and russia, namely *Tilia mandshurica* – Red List of Japanese vascular plants, and *Tilia amurensis* – Threatened Species List of China's Higher Plants and the Red Book of russia. Therefore, special attention is paid to rare species during introduction, as well as to the effectiveness of their conservation and protection *ex situ*.

Keywords: *Tilia*, introduction, population, Far East.