

CONTENTS

SECTION 1. FLORA AND VEGETATION

Lyskivka Mountain – a natural and historical heritage and amulet of the Busha State Historical and Cultural Reserve (Mohyliv-Podilskyi district, Vinnytsia region, Ukraine)

Zakharchuk I. V., Shynder O. I., Chorna H. A. 5

Season rhythm of development of rare species
of the Caryophyllaceae *ex situ* in the dendropark «Olexandria»

Kalashnikova L. V., Doroshenko Ju. V., Soloshenko V. S. 9

Expanding the genetic diversity of plant species of the genus *Cucurbita* due
to successful modification of interspecific hybridization technology

Kondratenko S. I., Linnik Z. P., Tkalych Yu. V. 14

Structural and morphological features of the generative system of plants
of the family Euphorbiaceae Juss. *Cyathium*

Levchyk N. Ya., Zaimenko N. V., Horbenko N. Ye. 19

SECTION 2. EXPERIMENTAL BOTANY

The problem of drought tolerance and water potential as an indicator
of osmotic resistance of plants under the influence of heavy metals

Bronnikova L. I., Zaitseva I. O. 25

SECTIONS 3. ECOLOGY

Natural landscapes of Poliskiy Nature Reserve, their value and threats
under the climate change conditions

Bumar H. Y. 29

Peculiarities of air pollution in Odesa with phenol

Burhaz O. A., Tymoshchuk M. O. 33

AI-driven decarbonization: a pathway to carbon neutrality

Hurei M. I. 36

Dendroflora of the Memorial Park of Ivano-Frankivsk: species composition
and structural and age features

Kavchuk I. M., Riznychuk N. I. 40

Prospects of using behavioral responses of *Daphnia Magna* in toxicity
identification evaluation

Konovets I. M., Kipnis L. S., Yuryshynets V. I. 43

<i>Taraxacum officinale</i> F. H. Wigg – bioindicator of heavy metals contamination in park ecosystems Nebesnyi V. B., Grodzynska G. A., Vovk K. V.	47
The influence of cereal grain contamination by fungal spores on its quality and safety indicators Chornolata L. P., Mysenko O. O., Vovk K. V.	53
SECTION 4. CHEMISTRY	
The danger of excess nitrates in natural sources Bezborodova Ye. I., Vakal Yu. S.	58
Biochemical corrosion of concrete under the influence of vegetable oil Shkromada O. I., Ivchenko V. D., Shvets O. G.	61
SECTION 5. PHYSICAL AND GEOGRAPHICAL RESEARCH	
The key issues and basic criteria to verify the results of soil decoding by space imagery Byndych T. Yu.	66
Importance of microspatial processes for the development of the environment Denisyk H. I., Ataman L. V., Denisyk B. G.	70
The impact of construction on the inert and living components of the landscape during the development of the production and industrial infrastructure of Ukraine Zelenchuk I. D.	74
Adverse agrometeorological conditions during 2020–2023 in Ukraine Pyasetska S. I.	77
SECTION 6. GEOLOGY	
Rare metal and critical raw materials: geochemical, economic and environmental aspects Kulchytska H. O., Chernysh D. S., Sietaia L. D.	82
SECTION 7. FEATURES OF TRAINING SPECIALISTS IN NATURAL SCIENCES	
Criteria for calculating the degree of provision of agricultural yields with chemical compounds as factors for mastering the practical part of the academic discipline «Balance methods for assessing soil quality» in agronomy Chechui H. F.	87