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EXPERIENCE OF USING DIFFERENT PLANTS IN URBAN ECOSYSTEMS

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Global ecological challenges in urban ecosystems, such as climate change, the decreasing availability of clean freshwater, noise pollution, irrational resource use, and overconsumption, compel society to seek rational solutions for their resolution. The most effective approach today remains the application of nature-based solutions within urban ecosystems, which are rooted in the logic and model of natural ecosystems. Thanks to their capacity to perform multiple beneficial functions simultaneously, these solutions can be seamlessly integrated into community development strategies across various sectors, including urban planning, green infrastructure, water resource management, waste management, and public participation, among others. Over the past decade, the European Commission has started to give special attention to nature-based solutions as an integral part of EU research and innovation policies. In 2020, nature-based solutions were officially recognized as a crucial tool for achieving the objectives of the European Green Deal. As part of this initiative, one aspect involves replacing lawns with native species of wildflowers that exhibit greater resilience to the biotic and abiotic factors of the urban environment.

In Ukraine, the traditional Soviet-era approach to landscaping, which includes mowed-down lawns, meticulously trimmed hedges, and lush flowerbeds with specially cultivated flowers, still persists. However, as Ukraine integrates into the European community, projects like these are becoming increasingly relevant in the country. The aim of our research is to analyze the experience of using wildflowers in Ukrainian urban ecosystems. In Ukraine, areas with wildflowers in urban ecosystems are relatively rare. Special use (extraction, collection) of objects from the Red Data Book of Ukraine is carried out in exceptional cases solely for scientific and breeding purposes and is completely prohibited for commercial purposes.

Thanks to their well-developed root systems, wildflower meadows retain twice as much water, reducing the need for human watering during both flood and drought periods. Wildflowers consume less water and require less frequent irrigation. Experimental wildflower meadow areas designed for educational purposes can be established near educational institutions and cultural sites.

Keywords: biodiversity, grasses, herbaceous perennials, ornamental flowerbeds, lawns, nature-oriented solutions, native species.