



“DORIVOR O‘SIMLIKLARNI YETISHTIRISH VA ULARDAN FOYDALANISHNING DOLZARB MASALALARI” MAVZUSIDAGI O‘ZBEKISTON – XITOIY XALQARO SIMPOZIUMI MATERIALLARI TO‘PLAMI



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PROCEEDINGS OF UZBEKISTAN-CHINA INTERNATIONAL SYMPOSIUM ON "CURRENT ISSUES IN THE CULTIVATION AND UTILIZATION OF MEDICINAL PLANTS"



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optimization, clinical validation, and bioavailability remain important areas for future investigation.

Conclusion. Medicinal plant research represents an expanding field with significant potential for addressing complex neurodegenerative disorders. Plant-derived bioactive compounds offer multi-target therapeutic mechanisms that may complement existing treatment strategies.

Future research should focus on standardized formulations, translational studies, and clinical validation to support the development of effective neuroprotective therapies. The integration of traditional medicinal knowledge with modern scientific approaches may contribute substantially to future advances in neurological healthcare.

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CURRENT ISSUES OF USING MEDICINAL PLANT IN PHARMACOLOGY

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Abstract. Medicinal plants remain a vital source of pharmacologically active compounds and continue to contribute significantly to drug discovery and healthcare worldwide. However, their effective integration into modern pharmacology faces several challenges, including variability in Phytochemicals composition, lack of standardisation, poor quality control, and limited clinical evidence supporting efficacy and safety. Unsustainable harvesting, habitat loss, and climate change further threaten the availability of valuable medicinal species. Additionally, issues related to contamination, adulteration, and herb-drug interactions raise concerns regarding patient safety. Addressing these challenges requires advanced analytical techniques, rigorous pharmacological and clinical investigations, sustainable cultivation practices, and stronger regulatory framework. Strengthening research and conservational efforts will be essential to unlocking the full therapeutics potential of medicinal plants while ensuring

their safety, and long-term availability. To identify the major challenges associated with the use of medicinal plants in pharmacology and explore possible strategies to improve their safety, quality, and therapeutic effectiveness. This study is based on a review of published literature, research articles, and reports related to medicinal plants, pharmacological studies, quality control, conservation, and regulatory aspects.

This study revealed several key issues, including lack of standardization, variability in phytochemicals composition, adulteration, insufficient clinical evidences, overexploitation of medicinal plant resources, and environmental threats such as climate change. The findings also suggest that scientific validation, quality assurance, sustainable cultivation, and stronger regulatory frameworks can effectively address these challenges.

Medicinal plants have significant potential in modern healthcare however, their safe and effective use requires improved research, standardization, conservation efforts, and regulatory oversight. Implementing these measures can enhance the reliability, safety, and long-term availability of medicinal plant-based therapies.

Keywords: Medicinal plants, Pharmacology, Healthcare, Harvesting, Quality Control.

CONSERVATION AND SUSTAINABLE USE OF MEDICINAL PLANTS IN UZBEKISTAN

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Abstract. This paper addresses the problems of conservation and sustainable use of medicinal plants in Uzbekistan, a Central Asian country with rich biodiversity. The current state of medicinal plant resources, collection and utilization practices, and major threats are assessed. Uzbekistan hosts about 4,500 vascular plant species, of which approximately 800 possess medicinal properties. More than 300 species are used in official and traditional medicine. Uncontrolled harvesting, land degradation, climate change, and lack of regulatory mechanisms lead to population decline and habitat loss. Recommendations include implementing sustainable harvesting practices, developing agro-technologies for cultivation, strengthening environmental legislation, launching restoration programs, and raising public awareness. Conservation of medicinal plants is essential for ecosystem stability, pharmaceutical industry development, and fulfilment of international commitments.

Keywords: medicinal plants; sustainable use; biodiversity conservation; Uzbekistan; traditional medicine; pharmaceutical industry; ecosystems.