

A COMPARATIVE STUDY OF PHYTOSANITARY CONDITION OF ABANDONED AND PROTECTED SYSTEM GRAPEVINE PLANTATIONS IN THE CENTRAL PART OF THE REPUBLIC OF MOLDOVA

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Introduction: Significant progress in protecting grapevines from harmful organisms requires a model shift toward comprehensive phytosanitary optimization in viticulture, that its resilience, is marked by frequent pest outbreaks and disease, especially monophagous and invasive ones. In recent years, the intensification of vineyard abandonment in the Republic of Moldova has generated imbalances in the structure of agroecosystems, favouring the emergence and establishment of phytopathogenic agents and harmful insect species with invasive status.

Aims: The present study aims to monitor the entomofauna and phytosanitary status associated with abandoned vineyard agroecosystems in the central region of the Republic of Moldova. The main goal of this research was to identify the complex of harmful insect species and phytopathogenic agents, with particular emphasis on invasive species and those with a high damaging potential in neighbouring vineyards.

Materials and Methods: This study employed a comparative monitoring approach across two experimental vineyard plots situated in close proximity from the central region of the Republic of Moldova, in the Călărași district. For to evaluate the diversity and prevalence of plant pathogens were used yellow sticky traps (ARBICO Organics, 1-800-825-2847); periodic sweep net sampling, conducted within both spontaneous ground vegetation and grapevine foliage; for phytopathogenic agents systematic were performed visual inspections, and collecting of plant tissues for further analysis.

Results: In this context, the research provides relevant arguments for the integration of these areas into entomological surveillance strategies and integrated disease management plans, while also contributing to the development of prevention policies against the spread of pathogens, especially monophagous and invasive ones, through a more sustainable use of grapevine plantations.

Keywords: invasive, pests, phytosanitary status, vineyards.