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EVOLUTION OF THE MOLLIC REDDISH PRELUVISOL IN A ROMANIAN RIVERINE REGION AND THE ASSESSMENT OF ITS AGRO-PRODUCTIVE PROPERTIES IN FARMS AND AGRO-TOURISTIC HOUSEHOLDS

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Abstract

The research focuses on the assessment of the main agro-productive properties and the evolution of the mollic reddish (red-brown) preluvisol between the Jiu and Olt rivers, under the new conditions of soil formation and exploitation, created after radical transformations in Romanian agriculture, when most of the lands were passed from state to private ownership. The first comparative analysis of the properties of the soil that evolved on the terrains utilized for crop culture on farms and agritourist households, with soil that evolved forest vegetation, attests to the impact of the anthropic factor – intense modification in the morphological, physical and chemical (deeper profile due to the eluviation - illuviation process, compaction and sealing of lower horizons and an irreversible decrease in natural fertility). The second analysis, of the soil utilized for crop culture, reveals that the morphology, contents, architecture, physical, hydric indicators and chemical proprieties have not undergone any positive or negative modification in a period of 23 years. Relevant for the farms and agritourist households that practice touristic activities is the presence and concertation of heavy metals. The identified heavy metals do not pose any threat to plants or humans, as their concentration does not exceed the normal permitted values, except for chromium, which is still well below the alert threshold. Current conditions enable the mollic reddish preluvisol to support an ecologically based agricultural production, thus ensuring the safety and traceability of the agri-foods offered to tourists.

Keywords: agro-productive properties, agritourist, heavy metals, soil profile, traceability

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